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Perceptions of mission and governance of Iowa's area community colleges

Mavis E. Kelley
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Kelley, Mavis E., Ph.D.

Iowa State University, 1990

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Perceptions of mission and governance of Iowa's
area community colleges

by

Mavis E. Kelley

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
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CHAPTER I. INTRODUCTION

Background

Two-year public post secondary institutions in Iowa have experienced rapid growth. In 1966, 12,419 students attended these institutions (Moench, 1988, p. 15) and by 1989, 49,351 students were enrolled (Moench, 1990).

During this period of growth many successful experiences have occurred; however, some observers feel the real test of the community college will occur in the next decade.

. . .the community college is also experiencing an identity crisis. Scholars and practitioners alike question its mission. Can the community college be "all things to all people"? Is the open door realistic, or does it diminish excellence? Should the community college remain comprehensive in scope, with fully developed transfer, occupational/technical, developmental, and personal enrichment functions, or should it become more focused in purpose and system of delivery? (DiCroce, 1989, p. 178)

In June of 1965, the Iowa General Assembly enacted Chapter 280A, S.F. 550 of the Iowa Code which enabled the creation of up to 20 area schools. Fifteen such institutions were established. The enabling legislation as amended states ten major functions that are to be carried out by the area colleges. They are as follows:

1. The first two (2) years of college work including pre-professional education.
2. Vocational and technical training at the post-high school level.
3. Programs for inservice training and retraining of workers.
4. Programs for high school completion for students of post-high school age.

5. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a high school, public or private.
6. Student personnel services.
7. Community services.
8. Vocational education for persons who have academic, socio-economic, or other handicaps which prevent their succeeding in regular vocational education programs.
9. Training, retraining and all necessary preparation for productive employment of all citizens.
10. Vocational and technical training for persons who are not enrolled in a high school and who have not completed high school.

These statements of function are similar to those developed for other state systems of community colleges.

Over forty years ago, the U.S. President's Commission on Higher Education (1947) stated:

Whatever form the community college takes, its purpose is educational service to the entire community, and this purpose requires of it a variety of functions and programs. It will provide education for the youth of the community certainly, so as to remove geographic and economic barriers to educational opportunity and discover and develop individual talents at low cost and easy access. But in addition, the community college will serve as an active center of adult education. It will attempt to meet the total post-high school needs of its community. (p. 63)

A broad view of the mission of a contemporary community college was identified by Blocker, Plummer and Richardson (1965) when they stated the following purpose to be served:

... it is appropriate for community colleges to provide, for all persons above the twelfth grade levels, education consistent with the individual's needs and the society of which they are a part, subject only to the restrictions in the state statutes.... The educational needs appropriate for the community colleges to fulfill at this time include:

1. The need for programs of liberal arts and sciences courses, usually the first and second years of college, which will provide sound general and preprofessional education of such quality that credit may be transferred to a nationally or regionally accredited four year college or university and applied towards degree of the baccalaureate level or higher.
2. The need for vocational-technical programs in the trades, industrial, agricultural, and semi-professional fields. Such programs may be of long or short duration, depending on the amount of time needed by the student to complete the requirements for entrance into the occupation.
3. The need for programs of courses for adults and other community college students, for which credit may or may not be given, designed to provide general education and to improve self-government, healthful living, understanding of civic and public affairs, avocational growth, constructive use of leisure time, personal family living satisfactions, cultural depth, and to facilitate occupational advancement.
4. The need for individual services to students including guidance and counseling, assistance in career selection, removal of deficiencies in preparation for college programs, personality and health improvement.
5. The need for programs and services for individuals and groups interested in cultural, civic, recreational, or other community betterment projects. (p. 25)

Governance is a complex policy issue. Monroe (1972) suggested that it encompasses both the control and direction of the college

. . . including the state constitution, statutes, state boards of education or higher education, local boards of control, the administration and, in some institutions, the faculty and the student body. It includes both the policymaking mechanisms and the agencies through which the policies are executed or administered. (p. 303)

Thornton (1972) offered a less complicated definition:

Locally controlled community junior colleges are governed in much the same way as other elements of the public schools. A locally elected board of trustees

establishes policies for the college or colleges in its district, under the laws enacted by the legislature and the regulations of a state board. (p. 116)

Both authors noted the difficulty of separating the established policies from the practices; and concluded that administering a policy is as much a part of that policy as is the statement of rules or laws from which it was created.

Purpose

All states provide for the oversight of their public higher education institutions through a governing board at the state and/or local level. Although the governance structures vary the functions carried out are quite similar: employing of the chief administrative officer, formulating administrative and personnel policies, ensuring fiscal integrity, and engaging in planning and evaluation functions.

In Iowa, each merged area school corporation has a board of directors which has the responsibility to appoint the chief administrative officer (superintendent or president of the institution). The regulatory and coordinating responsibilities in the oversight of these institutions have been given to the State Board of Education and the Director of the Department of Education.

The Iowa State Board of Education is composed of nine members, who are appointed by the Governor and subject to Senate confirmation. The major statutory responsibilities of the State Board listed in Chapter 256.7 of the Code of Iowa are to:

1. Adopt and update annually a five-year plan for achieving educational goals in Iowa
2. Approve expansion of an area vocational school to a community college
3. Review and approve curriculum of area colleges, including new programs
4. Review and approve budgets of area colleges
5. Consider and adopt, together with the State Board of Regents, approval standards for the general administration of MAS
6. Adopt and establish policy for programs and services of the Department of Education and rules for carrying out responsibilities of the Department
7. Constitute the Board of Vocational Education and Vocational Rehabilitation.

The director of the Department of Education is appointed by the Governor and is subject to Senate confirmation. The statutory duties of the director related to area colleges listed in Chapters 256.9 and 280A.25 of the Code of Iowa are to:

1. Act as Executive Officer of the State Board of Education
2. Administer the Department of Education
3. Supervise and evaluate the area college educational program and provide recommendations for improvement if deficiencies exist
4. Maintain a list of approved area colleges and remove those which fail to comply with approval standards established by the Board of Education and the Board of Regents
5. Approve sites and buildings to be acquired, erected, or remodeled
6. Conduct research on education matters
7. Prescribe a uniform accounting system for area colleges
8. Report biennially to the Governor on the condition of the schools under his supervision.

Each merged area college has a board of directors composed of no less than five or no more than nine members elected from the director district in the area. The board's statutory duties related to governance listed in Chapter 280.23 of the Code of Iowa are to:

1. Set the salary of the area superintendent
2. Establish policy and makes rules for the administration of the area college
3. Determine the curriculum of the area college, subject to the approval of the State Board of Education
4. Expand the curriculum of an area vocational school to a community college, subject to the approval of the State Board of Education
5. Prepare and approve the annual budget of a merged area school for review and approval by the State Board of Education
6. Receive and expend stipulated funds and set tuition rates
7. Acquire sites and erect buildings, contract indebtedness, and issue bonds.

The statewide coordination and regulation and mission of community college institutions are issues of concern to the Iowa General Assembly, the Iowa State Board of Education and boards of trustees of merged area colleges. The balance between state control and institutional autonomy has been discussed since the state statute was written to create the state merged area school system. The system of merged area school corporations was designed to provide freshman and sophomore level undergraduate education in arts and sciences, degree and non-degree programs in vocational education, and credit and noncredit adult and continuing education at campuses within commuting distance for all Iowans.

Action of the 1986 General Assembly mandated that the Iowa State Board of Education conduct a study of the governance of Iowa's community colleges and submit a report to the General Assembly by January 1990. (Chapter 256.7(7))

Several issues and questions will need to be addressed in response to the legislative mandate to study the governance of Iowa's community colleges:

1. what type of authority should be maintained by the state?
2. what areas of control should be reserved for the local boards of trustees?
3. if more authority is placed at the state level, what changes in local administration will result?
4. what changes are needed in the statement of mission or function to describe the roles to be carried out in the future?

It is the investigator's purpose to focus on the governance and mission of Iowa area community colleges to further delineate roles and responsibilities of the State Board and to further delineate the future functions of the area community colleges. A survey of educators, policymakers, and business leaders will be conducted to obtain information concerning mission and governance.

Statement of the Problem

Although the governance and mission of higher education institutions have been addressed in the literature only a few studies have focused specifically on the two-year public higher education institutions and whether or not there is a relationship between them. Because the structure of governance is critical to the operation of two-year public higher education institutions, it is important to establish a linkage, if possible, between how institutions are governed in the future and the state statutes concerning the functions of the community colleges.

Studying the current governance structure and mission of these community colleges is also useful in order to provide more specific

description of the kind of governance that is currently in practice and the mission that is being implemented.

Research efforts will be directed toward perceptions, based on the survey research findings, of the governance structure that best serves the Iowa area community colleges and of the specific functions these institutions should provide as a part of their statutory mission. These perceptions will be identified by area community college trustees, area community college presidents, members of the General Assembly, members of the State Board of Education, business leaders who have served on curriculum advisory committees of area community colleges, full-time faculty members, elementary-secondary school district superintendents, and staff members of the Department of Education. The subgroup constituencies were chosen because of their knowledge of the mission and involvement in the governance of area community colleges. The objectives of the study are as follows:

1. To determine the current functions identified as being important for area colleges to perform in the future
2. To determine the current functions identified as being unimportant for area colleges to perform in the future
3. To identify the manner in which local and state governance should be defined to provide educational services by area colleges
4. To ascertain the aspects of state governance that should be redefined to provide educational services by area colleges.

The descriptive variables included in the study for purposes of analysis in relationship to the four stated objectives are as follows:

1. Gender
2. Formal education
3. Years engaged in present position of employment or leadership.

Definition of Terms

Selected terms will be used throughout this investigation whose meanings may have a somewhat unique definition to the study and be capable of being interpreted in several different ways. Listed below are several of the unique terms from the investigation and the definitions used in this dissertation. Chapters 280A.2 and 256 of the Code of Iowa list the following definitions from specific school laws relating to area community colleges. These definitions are as follows:

1. "Area Vocational School" means a publicly supported school which offers as its curriculum or part of its curriculum vocational or technical training or retraining available to persons who have completed or left high school and are preparing to enter the labor market; persons who are attending high school who will benefit from such education or training but do not have the necessary facilities available in the local high schools; persons who have entered the labor market but are in need of upgrading or learning skills; and persons who due to academic, socioeconomic, or other handicaps are prevented from succeeding in regular vocational or technical education programs.

2. "Community College" means a publicly supported school which offers two years of liberal arts, preprofessional, or other instruction partially fulfilling the requirements for a baccalaureate degree but which does not confer any baccalaureate degree and which offers in whole or in part the curriculum of a vocational school.

3. "Merged Area" means an area where two or more county school systems of parts thereof merge resources to establish and operate a vocational school or a community college in the manner provided for in the Code of Iowa.

4. "Governing Board"--The governing board of a merged area shall be a board of directors composed of one member elected from each director district. Members of the board shall be residents of the district from which elected.

5. "State Board of Education"--The State Board of Education is established for the department. The State Board consists of nine members appointed by the Governor subject to Senate confirmation. A member shall not be engaged in professional education for a major portion of the member's time nor shall the member derive a major portion of income from any business or activity connected with education. One member shall have substantial knowledge related to vocational and technical training, and one member shall have substantial knowledge related to area community colleges.

6. "Area School" means an area vocational school or area community college established under the Code of Iowa.

7. "Division of Community Colleges"--There shall be a community college division within the state department of education. The division shall exercise the powers and perform the duties conferred by law upon the department with respect to area vocational schools and public community colleges.

Other Terms Not Defined in State Legislation:

8. President--The chief executive officer of the area community college is identified as the president by common practice.

9. Full-time Faculty--For purposes of this study, those individuals who are employed by the area community colleges in a teaching position that has assigned to it what is normally defined as a "full load." Persons in full-time faculty positions must satisfy the department of education requirements for full-time employment and licensure.

10. Mission--The functions of the community colleges as a system that are described in the state statutes.

11. Area Community College Trustees--Each area community college has a governing board which is referred to in the Code of Iowa as the board of directors, and more commonly referred to as community college trustees. The board of directors is composed of one member elected from each director district in the area by the electors of the respective district. Members of the board shall be residents of the district from which elected. The term of a member of the board of directors is three years. The board of directors has authority to determine the curriculum, establish tuition rates, employ a chief executive officer, enter into contracts, establish policy and make rules not inconsistent with state law and administrative rules and regulations, adopt procedures for the use of telecommunications as an instructional tool, and other related duties.

12. Director, Department of Education--The Governor appoints a director of the department of education subject to confirmation by the Senate. The director shall possess a background in education and administrative experience and serves at the pleasure of the Governor. The director of education has a number of specific roles with regard to area community colleges spelled out in Chapter 256 of the Code of Iowa.

13. Governance--The governance of the community colleges is a shared responsibility of the State Board of Education and the community college boards of directors (trustees). The State Board's authority includes the regulation and coordination of the system of fifteen community colleges; the college board of directors govern the college as described on page 11.

Terms defined in the survey instrument

14. Regulate--To make and enforce policies (administrative rules) according to criteria or principle.

15. Coordinate--To bring into proper order or to adjust to create harmony.

16. Leadership--To provide guidance and direction.

17. Educators or Educational Leaders--For purposes of the research activity, the following subgroups in the population surveyed were entitled, educational leaders: presidents and faculty members of area community colleges, superintendents of community school districts, and staff members of the Iowa Department of Education.

18. Policymakers--For purposes of the research study, the following subgroups were identified as policymakers: members of the State Board of Education, members of the General Assembly, and trustees or members of the board of directors of area community colleges.

19. Business Leaders--Business leaders are individuals who have served as members of program or curriculum advisory committees to area community colleges. Within the category of business leaders, the following occupational groups were listed: agribusiness, service sector, manufacturing (nonagricultural), retailer/wholesale industry, and finance or insurance.

Research Hypotheses and Question

The basic goal underlying this study is to identify common perceptions relating to mission and governance of Iowa's area colleges and also identify those functions and governance roles not currently being conducted but that should be in the viewpoint of the respondents.

Four null hypotheses will be tested and one research question studied in relationship to the above-mentioned goal and statement of the problem.

Hypothesis One: There is no significant difference between educators, policymakers, and business leaders and their perceptions of:

- a. current functions relating to the instructional credit programs of the area community colleges,
- b. functions that should exist relating to the instructional credit programs of the area community colleges.

Hypothesis Two: There is no significant difference between educators, policymakers, and business leaders and their perceptions of:

- a. current functions relating to the instructional noncredit programs of the area community colleges.
- b. future functions relating to the instructional noncredit programs of the area community colleges.

Hypothesis Three: There is no significant difference between educators, policymakers, and business leaders and their perceptions of:

- a. current functions relating to the noninstructional activities of the area community colleges.
- b. future functions relating to the noninstructional activities of the area community colleges.

Hypothesis Four: There is no significant difference between educators, policymakers, and business leaders and their perceptions of state governance roles of the State Board of Education as they relate to area community colleges.

Research Question: Will educators, policymakers, and business leaders hold similar perceptions of the functions of area community colleges regardless of gender, formal education, and experience?

Statement of Assumptions

Four assumptions guided the development of the survey instrument. The first assumption is that the educators, policymakers, and business

leaders who have served in an advisory capacity to area community colleges are the key individuals from whom to collect information concerning the mission and governance of Iowa's area community colleges.

The second assumption is that the perceptions about mission and governance of these key groups vary and this variation can be detected through the use of a mail survey.

A third assumption is that these key individuals honestly report their perceptions of mission and governance.

A fourth assumption is that mission and governance of area community colleges can be examined by assessing perceptions of current and future mission and governance of area community colleges.

Limitations of the Study

The sample was confined to public two-year area colleges in Iowa. Only the responses of area college trustees, presidents, and full-time faculty, school district superintendents, members of the State Board of Education, members of the staff of the Department of Education, members of the current General Assembly, and a random selection of business leaders who have served in an advisory capacity to area colleges were investigated in this study, collected via a mailed survey. Since the data in the study were self-reported and based on their experiences as policymakers, educators, and business advisors, it may be that their responses are not true reflections of what actually occurs in terms of functions or governance of the area colleges.

This study did not attempt to evaluate the success of the area colleges in carrying out their functions or to evaluate the success of the state governance roles.

Significance of the Study

In the literature, several statements of function (mission statements) and governance models are presented. Little information is provided about how the mission statements and governance models are perceived by policymakers, educators, and business leaders and how their perceptions might guide the revision of enabling state legislation to reflect contemporary societal needs for public two-year postsecondary education.

This study will be helpful to members of the state legislature, members of local and state policy boards who are charged to assess the responsiveness of the community colleges to their institutional mission, and policymakers who may wish to redefine the State's governance roles.

Furthermore, this study may provide a foundation for other students, researchers, and educators in higher education administration to use in conducting future studies on the mission and governance of community colleges.

CHAPTER II. REVIEW OF THE LITERATURE

Introduction

A review of the literature indicated that only a few studies address the governance and mission of community colleges. The majority of studies describe the governance and mission of four-year higher education institutions.

The initial sections of this chapter address the historical development of higher education governance structures and functions of two-year public higher education institutions.

Next, the current structure of governance and statutory responsibility for oversight by state boards of higher education is described.

In the last section of the chapter governance, regulation and coordination are addressed and it concludes with issues to be considered when a major change on governance is proposed and issues of mission are reviewed.

History of Governance Structures and Functions

The establishment of the New York Board of Regents in 1784 is considered the beginning point for state regulatory agents with accreditation and compliance responsibilities for higher education institutions. By 1969, forty-six of fifty states had governing or coordinating boards. Concurrently, states were developing master plans and some large states (Illinois, New York, and California) even developed scope and function statements (Harclerod, 1980). The range

of activities and the number of state-level coordinating or governing agencies have steadily multiplied since the 1800s.

Glenny (1985) described the statewide coordinating agency as,

one situated between the institutional governing boards and the political lawmakers. It leaves in place the governing boards of each institution or system to carry out the normal academic, personnel and management functions, while circumscribing activities that cause conflict among institutions or fail to work toward broader state goals. The statewide coordinating board takes two distinct forms, one with regulatory powers and the other with only advisory powers. Advisory boards generally perform at least two and often three of the four major functions of the regulatory boards--planning, policy analysis, and program review; they do not develop campus budgets. (p. 9)

Most regulatory boards have the power to approve new programs, new campuses and in some cases, to discontinue instructional programs. They may formulate public policies, review the budgets of the individual institutions or systems of institutions, and make recommendations concerning appropriations to the governor and legislature (Glenny, 1985).

The emerging trend in the United States is for more centralization of public higher education. Glenny (1985) observed that states with statewide governing boards seldom change to a governance structure that is less powerful and these states tend to fall below the median in personal income and the number of institutions to be coordinated, and most have strong legislatures rather than strong governors.

By comparison, regulatory boards have also increased in number, with the greatest growth in the 1960s. These agencies are most often

found in states with strong governors, above-median personal income, with many postsecondary institutions of great variety, and a diverse set of political forces working on higher education (Glenny, 1985).

Legislatures often give regulatory boards increased authority, and often these new areas of authority relate to administrative functions such as student aid and accreditation of institutions. These new powers of regulatory boards may make them appear to be governing boards; however, very few have influence on the selection of the president, governing board membership, or personnel and accounting policies of the institutions (Glenny, 1985).

By 1972 the basic patterns of state-level organization of higher education were in place to coordinate the massive expansion of higher education in the late '50s and '60s. By that year, 47 states had established either consolidated governing boards responsible for all senior institutions (and, in some cases, community and junior colleges also) or coordinating boards responsible for statewide planning and coordination of two or more governing boards. Three small states with a limited number of institutions continued to handle statewide higher education issues without a special coordinating or governing agency (Education Commission of the States, 1988).

Glenny (1985) found that during the last 15 years, social and economic changes have been the major issues for state education boards and state government; for example, enrollment fluctuations, economic conditions and other conditions related to faculty retrenchment.

Given the changes over the years, the current status of state structure for higher education is depicted in Appendix A (Education Commission of the States, 1988). The states with the most comprehensive statewide governing boards are listed on the left and states with coordinating boards or state agencies with only limited planning authority are listed on the right. The authors of the Education Commission of the States study reported,

Subtle, important differences among states are not represented in the chart, such as whether the legislature or the governor plays a more dominant role, whether the higher education institutions are exempt or held to the procedural requirements of state agencies, and whether there are subtle differences in tradition and leadership. Traditions may remain fairly consistent, but leadership may be strong and effective at one point and weak and ineffective at another due to changes in the membership of the board and the behavior of board members. The governor's authority to make board appointments may be the strongest means for influencing the quality of the higher education system. (p. 9)

Policymakers often inquire if single, statewide consolidated governing boards such as in Wisconsin and Massachusetts are becoming commonplace. A survey conducted by the Education Commission of the States in 1987 revealed that in the 15 or more states where this option has been considered in the past 10 years, it has been adopted in only one. In all others, the study reported that the choice has been to retain but strengthen an existing coordinating mechanism while maintaining a separate system of institutional governance.

Robert Pedersen, Dean of Curriculum and Instructional Development at El Camino Community College in Torrance, California, traced the emergence of public junior colleges from 1901-1946. He found that early authors documented the growth of these institutions as a result of changes in the American workforce, the "lengthening of adolescence," and the democratic form of government. Or, in other words, this educational institution was the answer to a growing demand for advanced knowledge, and represented the ideal means to provide education on a more equitable basis (Pedersen, 1987).

State governments were a major hindrance to the pre-war junior college by not legitimizing their existence. Local school boards, with the exception of those of California, typically established and maintained junior colleges without any specific legislative authority. In Iowa, Mason City Junior College was in operation for nearly 10 years before the state legislature enacted a junior college bill.

The judicial system also created barriers to the combined development of the junior college. The Asheville decision of 1930 (Zimmerman v. Board of Education of Buncombe County) dealt with the issue of a city public school system operating a small junior college as an integral part of the system without a tuition charge and without imposing a tax levy above the maximum school levy. The appellant claimed lack of specific statutory authority and no legislative provision for expenditure of tax revenues. The lower court ruled for the appellant; however, on appeal the State Supreme Court sustained the

right of the school system to establish and operate a junior college but did not empower any additional tax in support of the college. Also the court stipulated a junior college could be operated as long as it did not jeopardize legislatively mandated elementary and secondary schools. The Asheville decision set junior colleges apart from elementary and secondary schools as a separate class of institution with no primary claim on local tax revenues. The Depression caused huge reductions in local tax revenues, and the application of the Asheville decision in midwestern states resulted in the closing of many junior colleges as local banks struggled to maintain elementary and secondary schools. Of the nine junior colleges founded in Iowa after 1927, eight did not survive the Depression.

Pedersen (1987) noted that through the second world war, junior colleges were characterized by conflict with state and intermediate governments, instability of operation, and an ambiguous legal status. He also found that the commitment of rural communities to this educational institution carried the junior college into the future, ensuring students in the next generation access and opportunity, while providing the structure out of which emerged the community college.

Following the second world war, state governments did increase their share of the cost of junior colleges. Pedersen (1987) believes that the growing number of college-bound youth may have caused state governments to realize that students were better served through a regionally-based system of non-residential and low-cost colleges than through the costly expansion of state universities.

Current Structure of State Governance

The structure of state governance has been studied by several authors over the last twenty years. Blocker, Plummer and Richardson (1965) analyzed the structure of state governance and found twenty states with the community colleges under a state board of education and six of these reported to a state department or superintendent of education. They found that in only six states a separate junior college board or commission existed; in thirteen states the colleges were a part of a state board of higher education. A federal education policy, the Higher Education Amendments of 1972, served as a stimulus to state control and resulted in the creation of higher education commissions whose primary responsibility was coordination. Kintzer (1980) identified fifteen states with state boards solely responsible for community colleges, ten with state boards for all of higher education and five with a university board which included two-year postsecondary institutions. He also found that fifteen states had boards with responsibility to coordinate all levels of education.

Cohen and Brawer (1989) studied coordinating boards with authority to act only in fact finding and advisory capacities. They observed that governing boards with legally defined authority had responsibilities such as recommendations about budgets and allocation of state funds, salary schedules, articulation agreements, and the creation of new colleges.

A separate state board which governs community colleges is the form of governance that exists in Connecticut and Minnesota. Cohen and Brawer (1989) described these states as appearing to have one community college with several campuses and centralized decision making about budgets and operations. They observed that statewide bargaining and budgeting were present; however, decisions about curriculum planning were decentralized to the campus level.

Cohen and Brawer (1989) suggested that state-level management of higher education can be accomplished by combining the state university and community college system. Under this management structure they suggested that college presidents are responsible to the university system rather than a board of trustees and policy for all institutions would be established by a board of regents. Wisconsin and Ohio were identified as states which have this system.

Some Iowa community college administrators believe a separate state community college board could exert more influence on the legislature than the current State Board of Education, whose interests seem more directed toward K-12 education. The separate board could compete with the universities for higher funding, assure quality education and equal treatment of faculty, and coordinate a state college development system; this seems to appeal to these administrators. Other individuals suggest that if the board responsible for community colleges was also responsible for all of higher education, a thoroughly coordinated, economical and articulated pattern of higher

education might result. In rebuttal, the former group of administrators argued at discussions held at Iowa Association of Community College President's meetings, 1990, it may be ideal in theory but in practice such benefits have not been realized.

Cohen and Brawer (1989) observed that when most of the funds allocated to community colleges are channeled through a state board for community colleges, strains are present between state controls and local autonomy. The problem is not just "shared decision making authority," they reported; it also related to other state agencies (p. 105).

Mundt (1978) identified external groups outside the state board and the local boards whose influence had an impact on decision making process and the operation of the colleges. The State of Washington was one that he analyzed and found executive orders from the governor, directives and contractual controls from the finance office, legal opinions and audits from a variety of state agencies. He reported that, "Recently the president of Highline Community College . . . found the college was reporting to twenty-nine outside, third-party agencies in one way or another" (p. 53).

Owen (1978) identified state regulations and agencies impacting on community colleges in Florida. State laws required that public hearings occur prior to any "rule, fee, degree program, or major catalogue change" (p. 26).

However, Cohen and Brawer (1989) observed that state level coordination has produced numerous advantages,

funding has been made more equitable than it was when community college districts depended on local tax revenues and the gaps between rich and poor areas of states were pronounced. Some states have developed sophisticated management information systems and student information systems in which all colleges provide data in uniform fashion, data that may then be cross-tabulated for the benefit of planners at individual institutions and may be used to generate reports for other state and federal agencies.

. . . Articulation between community colleges and public universities in the same state has also been enhanced when statewide coordination is evident. And a state board is more able to speak to the legislature with a single voice. (p. 106)

Richardson, Blocker and Bender (1972) studied state-level coordination and observed that community colleges could gain more than other higher education institutions. But Cohen and Brawer (1989) stated,

there is a fine line between statewide coordination and state control. Many educators would prefer that the resources be provided with no strings attached, fearing that the state mandates for programs and types of services that may be provided within specific categories would unduly restrict their efforts to provide proper services for their constituents. State-level coordination has certainly magnified the sets of regulations . . . it has also yielded more stable funding, the augmentation of services for certain groups of students such as the handicapped, and the strengthening of minimal standards of operation, and helped to minimize program duplication. The question whether it has been of general benefit or detriment cannot be answered; . . . it has changed the ground rules for institutional operation, the professional outlook of the staff and the way the colleges are perceived by the public. (pp. 106-107)

Folger and Berdahl (1988) analyzed the extent to which systematic and comprehensive state efforts exist to assess if current educational reforms are working and improvements are being achieved. They reported that, "assessment has not been institutionalized in most states and state agencies are still trying to determine how assessments ought to be conducted" (p. 20).

The Education Commission of the States issued a report in 1988 which identified five situations that stimulate movement toward reorganization:

1. actual or potential duplication of programs
 2. visible conflict between the aspirations of two institutions (often under separate governing boards) located in one geographical area
 3. legislative reaction to intense institutional lobbying (ironically, institutional representatives oppose reorganization proposals as intrusions into institutional autonomy, yet their own behavior in the legislative process may be the motivation for the change)
 4. a sense that the existing higher education structure has been ineffective in addressing issues for which it was established (in states where serious reorganization proposals are made, political leaders frequently express opinions that the existing governance structure is providing ineffective leadership or that it lacks the political influence and judgment to deal with critical issues facing the state)
 5. limited public resources spread over too many institutions with little attention to quality and unique missions.
- (pp. 6-7)

Economic development is an issue of discussion among political leaders and administrators of higher education institutions in the public press. It appears to the investigator that there is a consensus that higher education plays a central role in the ability of a state to attract new industry (especially "high-tech" companies like U.S. West,

who chose a Colorado location because of the state's higher education institutions) and in the general social and cultural well-being. A critical review by the legislature is underway in Iowa and other midwestern states of the effectiveness and responsiveness of the state's system for governing and financing higher education. More effective governance is often noted as essential to obtaining the leadership to carry out the visions of economic growth.

Centrally directed governance may not be the only option to effect stronger governance. The Education Commission of the States (1988) identified options which address decentralization, yet strengthen existing governance groups:

1. increased recognition of the importance of all governing boards by improving the quality of persons appointed to the boards and greater participation of board members in professional development programs, and
2. increased financial management flexibility for institutions by reducing the number of line items in the state budget and delegation of authority to institutions to shift funds among programs and accounts, for carryover of funds at the end of fiscal year, and for retaining and investing institutional revenues. (pp. 9-10)

Proponents of decentralization call for increased use of incentives rather than traditional policy directives and regulations.

Issues Related to Change In Governance

DiBiasio's (1986) research of higher education in six states identified that a common theme was the issue of centralization/decentralization. Interest in centralization emerged from concerns about economic development and improving quality and the possible

advantage of centralizing and coordinating those activities at the state level. Simultaneously, a trend toward decentralization was the result of a desire by policymakers to give state higher education systems more flexibility and more managerial responsibilities.

Before a major change in governance is proposed, the Education Commission of the States (1988) suggests that state and institutional leaders should:

1. See organizational structure and reorganization as a means rather than an end in themselves. Some states have begun a reorganization without a deliberate effort to identify and clarify the real issues facing the state
2. Examine the total higher education policy process, not just the formal higher education structure. In a number of states, the focus has been on the authority and functions of single agencies or groups of state-level boards without thorough consideration of the roles played by the governor, legislature, and legislative branch staffs. Also important are the formal and informal relationships that make up the state higher education policy process. It is not uncommon for one state to attempt to adopt another state's structure without considering these points. (p. 11)

Hines (1988) concluded that state coordination of higher education is perhaps the most complex balancing act in state government and conflicting interests are the reality. He noted that state interests are not the same as institutional interests, and, despite assertions to the contrary, state interests are not simply the sum of the interests of all of the institutions in the state. An effective structure, in his view, is one that draws these conflicting interests together in a way that differences and tensions are resolved before they erupt into major political controversies.

It has been observed that the reorganization of governance may not solve the problems that exist in a specific state. "The number one misleading point of view advanced by governors, legislators, and higher education leaders is that governance is the solution to their problems" (McGuinness, quoted in Jaschik, 1987, p. 28). Each state needs to observe and learn from other states and adapt solutions that apply to state-specific problems.

"Governance is not an end in itself--rather it is a means to a system of postsecondary education in a state" (Callan, quoted in Hines, 1988, p. 7). Hines (1988) stated that,

postsecondary education can function as a system only after critical issues and state-specific problems have been identified, after goals for the higher education system have been articulated, and after state and education leaders alike have decided upon a structure suitable to the state. (p. 7)

Issues Related to Change in Mission

Hines (1988) described that the recent attention to defining, mission, clarifying goals, and implementing strategic plans is designed to establish a link between higher education and the larger society. His analyses of reform efforts in a number of states help to explain the nature of the reform movement. A study of fifteen states found that six areas of common concern exist: quality, mission and function, efficiency, governance, financial support, and the relationship between higher education and economic growth (Mangieri and Arnn, 1986).

Cross and Fideler (1989) described the community colleges in the late seventies and early eighties as a time when community college mission became a subject of dialogue and concern. They suggested that "new demands have resulted from changing demographics, social, economic and political conditions as well as unprecedented growth in the past" (p. 210).

Cohen and Brawer (1987) have redefined the collegiate function of the community college. According to these authors, the curriculum should fit the "institutional realities" of the community colleges and thus should differ from the liberal arts in the university. It should promote "social cohesion or economic development," be "useful in the workplace," "contribute to the well-being of the community," and "teach people to be enlightened citizens" (pp. 170-71). By this statement of mission, the curriculum should include transfer opportunities, but transfer should not be the total function of the collegiate curriculum.

Student intentions were categorized by Cohen and Brawer (1987) as preparing for transfer, gaining skills for a new occupation, occupational upgrading and personal interest, and reconceptualized the curriculum into liberal arts and skills (basic, occupational and recreational).

Cohen and Brawer (1987) have reaffirmed and refocused the community college mission and defined the collegiate function as a connector to multiple realities, capable of producing an integrated curriculum, with improved student flow" and "strengthen[ed] occupational/technical areas" (p. 192).

"Balancing flexibility and responsiveness to social change with institutional integrity and continuing commitment to communities," was identified by Cross and Fideler (1989, p. 216) as the future challenge for community colleges.

Conclusion

The literature reviewed indicates that, prior to embarking on a major change in governance of higher education, state policyholders should identify the critical issues and state-specific problems and the goals for the higher education system. Functions should be decided prior to determining a structure for the system since governance is a means rather than an end in itself.

No state-supported institution anywhere exists apart from the state [that] created it and whose public interest it exists to serve. By the same token, no state coordinating agency, or any other agency of government for that matter, serves the great goals of efficiency, economy, and accountability unless it has a sophisticated and sensitive grasp of the transcendent importance of quality education, in all its rich and varied meanings. Plainly the task ahead is to develop consultative relationships that bring legitimate concerns of state agencies into shared perspectives. Warfare is too costly. (Berdahl, quoted in Hines, 1988, p. 4)

CHAPTER III. METHODOLOGY

Introduction

The perceptions of key political leaders, educators, and business leaders concerning mission and governance in public two-year postsecondary institutions were examined in this study. Two basic purposes were incorporated in the study. The first was to seek perceptions of the various respondents relating to current institutional functions as to whether or not they are now being conducted by area colleges, and the intensity of the same by the respondents as to the desirability of the stated institutional functions being conducted in the future. The second purpose was to seek perceptions of the various respondents relating to the governance of the community colleges and specifically the type of authority the State Board of Education and the Department of Education should exert concerning various areas of responsibility. The perceptions of institutional functions and governance roles were obtained from eight constituencies; specifically, 1) area college trustees, 2) area college administrators, 3) members of the State Board of Education, 4) members of the 1989 General Assembly, 5) business leaders who have served on an advisory committee to an area college, 6) faculty members of area colleges, 7) school district superintendents, and 8) staff members of the Department of Education.

The responses of the various constituencies were studied in order to obtain their perceptions of the specific statements relating to area

colleges in the areas of mission or function and state governance. In addition, attempts were made to determine the relationship, if any, between selected descriptive variables and the perceptions of the respondents.

This chapter reviews the study's methodology, including the following: subjects, instrumentation, procedures, and data analysis.

Subjects

Table 1. Respondents in sample

Respondents	Number in Population	Number in Sample
Area college trustees	120	120
Area college presidents	15	15
Area college faculty (full-time)	1,593	375
State Board of Education	9	9
Department of Education Staff	148	16
Legislators	150	150
Business leaders	4,173	150
School district superintendents	377	150

Instrumentation

The survey instrument used for this study and included in Appendix B included both area community college functions (mission) and areas of responsibility (governance). The survey instrument was printed and

mailed by the Department of Education and the cover was designed by Carl Rejba, graphic artist. The letter included inside the survey was signed by Dr. William Lepley, Director of the Iowa Department of Education.

The instrument contained three sections; descriptive information, perceptions of functions to be carried out by community colleges, and areas of responsibility to be assumed by the State Board of Education.

The first section of the survey requested the following information from the respondent:

1. Position
2. Years in present position
3. Gender
4. Formal education
5. Service as an area college advisory committee member (business leaders and policymakers only)

After the descriptive data items were completed, the respondents were asked to complete two scales. The scales were used to determine whether respondents felt that specific functions were currently being conducted or should be conducted in the future. The respondents completed the left-hand scale for each statement of function (currently doing) by selecting one of three choices, 1) A (agree), 2) D (disagree), and 3) U (undecided). Following completion of the left-hand scale for the thirty-four items concerning functions, the respondents were asked to complete the right-hand scale (should be doing) for the

statement of function. The right-hand scale provided the respondents with eleven choices on the following scale:

A	1	2	3	4	5
D	1	2	3	4	5

Responses A1 or D1 represented a slight agreement or disagreement with the following numbers indicating an increasing intensity of opinion through number 5, which indicated strong agreement or disagreement. If the respondent circled both A and D and no numbers, they indicated they were undecided.

Section A contained thirty-four statements describing functions of community colleges plus a space for additional written statement of function by each respondent. The thirty-four statements of function were classified in three groups: instructional credit, instructional noncredit, and noninstructional functions.

Section B contained a list of forty-nine areas of responsibility. For each area of responsibility the respondents were asked to indicate the type of authority that should be vested in the State Board of Education and the Department of Education (state governance). The instrument provided four choices; regulated at the state level, coordinated at the state level but not regulated, leadership from the state level, and no state involvement, plus space for additional written areas of responsibility by each respondent.

The total of all statements of functions, plus two subscales for each statement of function, and the areas of responsibility combine for a total of 117 variables. These statements were developed by the researcher with the assistance of a panel of experts.

Upon completion of the proposed survey instrument, it was distributed to six faculty members of area colleges, five Department of Education personnel, one trustee, one State Board member, and one business leader. These individuals were requested to complete the survey instrument. Following this procedure, the researcher visited with each individual asking for suggested changes to the format to complete the face validation process. Suggested changes were evaluated and incorporated into the final survey.

The Iowa State University Committee on the Use of Human Subjects in Research concluded that this study adequately protected the rights and welfare of the human subjects, that its potential benefits outweighed its risks, that it assured confidentiality, and that it obtained modified informed consent.

Description of the Population

The constituencies selected were divided into three general categories that relate to the area community colleges; educators, policy-makers, and business leaders. These constituencies are described in Table 2.

Total in Sample

A list of random numbers was generated for each of four groups using the table of random numbers contained in the reference, Snedecor and Cochran (1967), for faculty members, superintendents, Department of Education personnel and business leaders. The lists of faculty members, superintendents and business leaders were kept separate by geographic area of the state to assure statewide representation of constituency groups. Using the lists of random numbers, twenty-five

Table 2. Numbers in population and sample selected

Group	Number in Population	Number in Sample
Educators		
Presidents	15	15
Faculty (full-time)	1,593	375
School superintendents	377	150
Department of Education staff	<u>148</u>	<u>16</u>
Total	2,133	556
Policymakers		
State Board of Education	9	9
Legislators	150	150
Trustees	<u>120</u>	<u>120</u>
Total	279	279
Business leaders	4,173	300

faculty members were selected from each area college, ten elementary-secondary school district superintendents were selected from each geographic region (area college boundaries) and twenty business leaders were selected from lists of individuals who have served as advisory committee members to community college programs. The list of personnel in the Department who work in educational administration, curriculum and instruction, and educational support services was compiled. Using a random list of numbers, sixteen individuals were selected for inclusion in the study.

The listings of personnel were numbered consecutively prior to selection, an equal number from each major unit of the Department. The individuals were then chosen on the basis of their corresponding numbers as against the numbers generated in the random listing.

Prior to the distribution of the survey, the proposal was presented to the area college trustees and presidents, to the members of the State Board of Education and director of the Department of Education, for additional comment and support.

Collection of the Data

In June 1989, the perception survey was mailed to 1,135 individuals comprising the random sample and population groups. This mailing was done from the Department of Education.

A follow-up survey with a reminder inserted in the instrument was mailed to approximately 800 individuals in July 1989. This mailing was

also done by the Department of Education. Both mailings provided a self-addressed, postage-paid reverse mailer. Final returns of the survey included in the survey were obtained by September 29, 1989.

Treatment of the Data

When the surveys were returned, each instrument was coded with the appropriate geographic region. Following this procedure, information from each survey was entered in the Iowa Department of Education mainframe computer (Honeywell system). IBM and Honeywell machines and both SAS and SPSS-X programs were used to tabulate and summarize the data. The usable responses from the various subgroups were statistically treated in relationship to the criterion variables.

A one-way analysis of variance treatment and orthongonal contrast were applied to the first, second, and third null hypotheses and the chi-square procedure was applied to the fourth null hypothesis stated in Chapter 1 of this dissertation. The research question was treated with descriptive applications only. All of the hypotheses are stated as a null hypothesis of no difference.

In preparation for the ANOVA treatment and chi-square, each group's raw scores were weighted one-eighth to equate the contribution of the groups to the grand mean or frequency and to compensate for the use of non-uniform sampling fractions. The weights assigned to each group are as follows; presidents (01) = 4.425, faculty (02) = .274, superintendents (03) = .790, Department of Education staff (04) =

4.425, State Board (05) = 7.375, legislators (06) = 2.074, trustees (07) = .976, and business leaders (08) = 1.006.

In one-way analysis of variance it is usually assumed that the variability among respondents within subgroups is less than the variability between subgroups if there is a subgroup influence. Because of this, only the between subgroups F value will appear in the following chapter's tables and the appendices that relate to the chapter.

When significant F values were obtained, the Scheffé tests were used to test for differences between subgroups to determine what subgroups were different. F values obtained from the Scheffé tests were compared to the appropriate table values to determine if significant differences appeared to exist between subgroups in question.

The application of analysis of multivariate frequency distribution (chi-square) was chosen to determine what role the respondents felt the State Board of Education should have in the governance of community colleges. Three groups of respondents, educators, policymakers, and business leaders, were examined to test the hypothesis of independence between position and perception of the type of authority to be vested with the State Board of Education and the Department of Education.

Obtained values of X^2 were compared to the tabled distribution for the statistic. When the calculated value exceeded $\alpha = .05$, the hypothesis of independence was rejected.

Where appropriate, descriptive statistical data such as the mean, standard deviation, and relative percentages were used in an attempt to further describe the findings of the research. The one percent level of significance was used in the ANOVA treatments and the testing of the hypotheses numbers one, two, and three. Limits of rejection for these hypotheses were set at the fifty-one percent level. In essence, it took a simple majority of statements of function that were significant within a category such as instructional credit programs to reject a null hypothesis.

CHAPTER IV. RESULTS

Introduction

The findings of the composite and grouped returns from 531 respondents are the basis for this chapter. The respondents were categorized as educators, policymakers, and business leaders. Table 3 provides a summary of the surveys mailed, returned and the number of returns that were usable.

Table 3. Number of surveys mailed and the number and percent of these returned and usable

Constituencies	Number Mailed	Number Returned	Percent Returned	Number Usable	Percent Usable
Educators	556	362	65.1	356	64.0
Presidents	(15) ^a	(15)	(100)	(15)	(100)
Faculty	(375)	(247)	(65.9)	(242)	(64.5)
Superintendents	(150)	(85)	(56.6)	(84)	(56.0)
Department of Education Staff	(16)	(15)	(93.75)	(15)	(93.7)
Policymakers	279	112	40.1	109	39.1
State Board	(9)	(9)	(100)	(9)	(100)
Legislators	(150)	(33)	(22.0)	(32)	(21.3)
Trustees	(120)	(70)	(58.3)	(68)	(56.6)
Business Leaders	<u>300</u>	<u>79</u>	<u>26.3</u>	<u>66</u>	<u>22.0</u>
Totals	1,135	553	48.7	531	46.7

^aNumbers within parentheses are included in the number preceding which is not in parentheses.

From the table, one can observe that a total of 1,135 surveys were mailed and 553 returned for a total percentage of 49 percent. Nearly 2 percent of the returns were not usable. On several of the unusable returns, the post office notified the researcher that the individual no longer resided at the address; this occurred primarily with business leaders. In other cases, the respondents wrote a message stating a lack of experience with or knowledge of community college issues; this occurred primarily with legislators.

This chapter contains the descriptive statistics and appropriate summarization, the statistical analysis derived from the analysis of variance and chi-square procedures.

Descriptive Data

Five hundred thirty-one educators, policymakers, and business leaders provided data for this study. The educators included area college presidents and full-time faculty, Department of Education personnel, and school district superintendents. The policymakers included area college trustees, state legislators, and State Board of Education members. The business leaders included individuals who have served on advisory committees for the area community colleges. The sample included respondents from all geographic areas of the states, males and females, individuals whose formal education was less than a high school education to doctoral degrees.

Statistical analysis of the subjects revealed that twenty-seven percent of the respondents in the sample were female and seventy-three

percent were male. Table 4 provides an indication of gender of respondents by subgroup. An analysis of the percentage of males and females in the subgroups indicated that this percentage breakdown is representative of the educators and policymakers.

It is relevant to note that, with the exception of faculty members and State Board members, male respondents greatly outnumber female respondents. In the category of faculty, male respondents totaled sixty percent while female respondents totaled forty percent. In the category of State Board members, female respondents totaled fifty-five percent while males totaled forty-five percent. This can be compared to the total of all groups which shows that male respondents totaled seventy-three percent as contrasted with twenty-seven percent for female respondents. The faculty may represent a broader cross-section of the total population than other subgroups involved in the study.

By Iowa law, state boards and commissions are to be gender balanced and therefore the population reflects compliance with the law.

The next area of demographic data is that of formal education completed by the respondents. There were six categories of educational levels included on the survey and the distribution of responses included in all categories; however, less than high school education was completed by only two respondents.

Table 5 indicates that the formal educational level of the respondents is quite high. Three hundred seventy-three (seventy-one percent) of the respondents had earned collegiate degrees of baccalaureate

through doctorate, forty-three (eight percent) had earned two-year college degrees, and thirty-eight (seven percent) had a high school diploma or less than a high school education.

Of the eight constituencies, respondents categorized as educators show the highest percentage having completed some formal education beyond the bachelor's level, with one hundred percent of the presidents, seventy-seven percent of the faculty, sixty-three percent of the superintendents, and eighty percent of the Department of Education staff having checked this category. If the "other category response" is added to these educators' responses, the percentages increase to one hundred percent for superintendents, eighty-seven percent for faculty, and ninety-three percent for Department of Education staff. The handwritten responses indicated that the other formal educational levels were master's specialist degrees and, in a few cases, law degrees. If the "other category response" is added to the legislators, trustees, and State Board responses, their percentage of respondents beyond a bachelor's degree increases to seventy-two percent, seventy-six percent, and seventy-seven percent respectively. Their handwritten responses indicated that the other formal educational levels were master's specialist, law, and divinity degrees.

Of the subgroups within the three constituency groups, presidents and superintendents had the narrowest ranges of educational levels.

Table 4. Gender of respondents

	Absolute Frequency of Respondents	Relative Percentage of Respondents
Total Groups		
Male	386	72.7
Female	<u>145</u>	27.3
Valid Observations	531	
College Presidents		
Male	15	100.0
Female	<u>0</u>	0.0
Valid Observations	15	
Faculty Members		
Male	146	60.3
Female	<u>96</u>	39.7
Valid Observations	242	
School Superintendents		
Male	80	95.2
Female	<u>4</u>	4.8
Valid Observations	84	
Department of Education Staff		
Male	11	73.3
Female	<u>4</u>	26.7
Valid Observations	15	
State Board		
Male	4	44.4
Female	<u>5</u>	55.6
Valid Observations	9	
Legislators		
Male	26	81.2
Female	<u>6</u>	18.8
Valid Observations	32	

Table 4. (continued)

	Absolute Frequency of Respondents	Relative Percentage of Respondents
Trustees		
Male	54	79.4
Female	14	20.6
Valid Observations	68	
Business Leaders		
Male	50	75.8
Female	16	24.2
Valid Observations	66	

Table 5. The educational levels of the respondents

Educational Level	Absolute Frequency of Respondents	Relative Percentage of Respondents
Total		
High School or less	38	7.3
Associate degree	43	8.3
Bachelor's degree	108	20.7
Education beyond bachelor's degree	265	50.9
Other	67	12.8
Valid observations	521	
Presidents		
High School or less	0	0.0
Associate degree	0	0.0
Bachelor's degree	0	0.0
Education beyond bachelor's degree	15	100.0
Other	0	0.0
Valid observations	15	

Table 5. (continued)

Educational Level	Absolute Frequency of Respondents	Relative Percentage of Respondents
Faculty Members		
High School or less	10	4.3
Associate degree	21	8.8
Bachelor's degree	57	24.1
Education beyond bachelor's degree	135	56.9
Other	14	5.9
Valid observations	103	
Superintendents		
High School or less	0	0.0
Associate degree	0	0.0
Bachelor's degree	0	0.0
Education beyond bachelor's degree	52	63.4
Other	30	36.6
Valid observations	82	
Department of Education		
High School or less	1	6.7
Associate degree	0	0.0
Bachelor's degree	3	20.0
Education beyond bachelor's degree	9	60.0
Other	2	13.3
Valid observations	9	
State Board		
High School or less	2	22.2
Associate degree	0	0.0
Bachelor's degree	5	55.6
Education beyond bachelor's degree	1	11.1
Other	1	11.1
Valid observations	9	

Table 5. (continued)

Educational Level	Absolute Frequency of Respondents	Relative Percentage of Respondents
Legislator		
High School or less	5	15.6
Associate degree	4	12.5
Bachelor's degree	5	15.6
Education beyond bachelor's degree	13	40.7
Other	5	15.6
Valid observations	32	
Trustee		
High School or less	8	11.8
Associate degree	8	11.8
Bachelor's degree	21	30.9
Education beyond bachelor's degree	23	33.7
Other	8	11.8
Valid observations	68	
Business Leaders		
High School or less	12	19.1
Associate degree	10	15.9
Bachelor's degree	17	27.0
Education beyond bachelor's degree	17	27.0
Other	7	11.0
Valid observations	63	

Community college faculty members were represented in all categories of formal education levels. Certification requirements at the state level permit individuals with substantial work experience to teach in the vocational and technical programs.

The trustee role in the community college system is a locally elected office and there are no formal education requirements and

therefore a wide range of experience can be expected.

Community college administrators and superintendents of local school districts all reported having obtained a master's degree or doctoral degree. For several years the expected formal education level of administrators has been a master's degree. For school administrators it was not only expected but required. Area college presidents have no requirement to be certificated or have attained a specific level of formal education; however, it is interesting to note that eighty-seven percent have obtained a doctoral degree. From Department of Education records, formal education level of the individuals who first served as area community college presidents, it is noted that seventy-five percent had obtained a doctorate degree.

The percentage of respondents who achieved less than a bachelor's degree was somewhat unexpected. Faculty members were the largest percentage, with thirteen percent of the respondents checking less than a baccalaureate level. The percentage of legislators and trustees was close to business leaders with twenty-eight percent and twenty-three percent having completed less than a baccalaureate as compared to twenty-five percent for business leaders. This is not unexpected for business leaders when one considers many of the business leaders who serve in an advisory capacity to community colleges represent occupational areas for which the colleges provide training; occupations which require less than a bachelor's degree. Faculty members selected for the study were full-time employees of the college. Liberal arts

instructors are required to have a master's degree; however, vocational education faculty requirements are much more competency based and vary according to the occupational area taught. A greater proportion of the full-time faculty in many colleges tend to be employed in the vocational education area and therefore more heavily represented in the survey. Trustees and legislators are elected from among the general population and, therefore, a wider range of formal education can be expected.

Years of experience of the respondents at their present position is the next descriptive variable to be examined. Table 6 indicates that the average number of years that the respondents have held their respective positions is 10.3. With the exception of State Board members and legislators, the range of average number of years of experience was very narrow, 9.2 to 11.5. State Board members are appointed for six year terms and can be reappointed to a second term. Legislators in the House of Representatives are elected for two-year terms and in the Senate for four years, and members of both houses can also be re-elected. One legislator responded affirmatively to the survey question, did you serve in the state legislature in 1965; the year the legislative movement began to create the area community college system. Service of less than ten years for policymakers may be expected due to the procedures to the appointive or elective process used to obtain these positions.

Table 6. Years of experience respondents employed in their position

Group	Years of Experience	Absolute Frequency of Responses	Relative Percentage of Responses
Total Group	1 to 9 years	258	54.2
	10 years or over	218	45.8
	Valid observations	476	
	Mean = 10.32 Standard deviation = 7.49		
Presidents	1 to 9 years	5	50.0
	10 years or over	5	50.0
	Valid observations	10	
	Mean = 10.60 Standard deviation = 7.58		
Faculty	1 to 9 years	107	47.1
	10 years or over	120	52.9
	Valid observations	227	
	Mean = 11.30 Standard deviation = 7.27		
Superin- tendents	1 to 9 years	42	63.6
	10 years or over	24	36.4
	Valid observations	66	
	Mean = 9.17 Standard deviation = 8.02		
Department of Education	1 to 9 years	7	46.7
	10 years or over	8	53.3
	Valid observations	15	
	Mean = 11.13 Standard deviation = 8.95		
State Board	1 to 9 years	7	87.5
	10 years or over	1	12.5
	Valid observations	8	
	Mean = 5.13 Standard deviation = 4.22		
Legislators	1 to 9 years	25	92.6
	10 years or over	2	7.4
	Valid observations	27	
	Mean = 6.22 Standard deviation = 4.01		

Table 6. (continued)

Group	Years of Experience	Absolute Frequency of Responses	Relative Percentage of Responses
Trustees	1 to 9 years	38	56.7
	10 years or over	29	43.3
	Valid observations	67	
	Mean = 9.19 Standard deviation = 7.08		
Business Leaders	1 to 9 years	27	48.2
	10 years or over	29	51.8
	Valid observations	56	
	Mean = 11.50 Standard deviation = 8.39		

Table 7 provides an indication of the number of respondents by geographic areas (areas defined by the boundaries of the area colleges) who completed the survey. Appendix C contains a map which defines the areas. Each survey was coded upon receipt to indicate the appropriate area. The highest percentage of returns was from the Cedar Rapids area and the lowest from the Creston area where, upon further inspection of the data, it was determined that the relative percentage of responses from legislators and business leaders were low.

The next area of descriptive statistics presented is the section relating to occupational categories represented within the business leader position. Table 8 depicts the five occupational categories of this study. It is easily discernible that the majority of the respondents in the business leader position checked service or manufacturing (nonagricultural) occupations. Over thirty-four percent checked the

other category and wrote in responses such as health care management, data processing, law, and government. The service and manufacturing occupations are consistent with the curriculum emphasis of the area community colleges.

Table 7. Respondents by community college areas

Area	Frequency	Percent
1	37	6.97
2	33	6.21
3	41	7.72
4	35	6.59
5	39	7.35
6	29	5.46
7	39	7.35
9	35	6.59
10	48	9.04
11	43	8.10
12	33	6.21
13	33	6.21
14	26	4.90
15	31	5.84
16	<u>29</u>	<u>5.46</u>
Valid Observations	531	100 %

Note: No community college area in the state is designated as number 8

Table 8. Occupational categories of business leader respondents

Occupational Category	Absolute Frequency of Respondents	Relative Percentage of Respondents
Agri-Business	6	9.09
Services Sector	15	22.73
Manufacturing (Non-Agri)	12	18.18
Retail/Wholesale	6	9.09
Finance/Insurance	4	6.06
Other	<u>23</u>	34.85
Valid Observations	66	

Service as an advisory member on an area community college curriculum or program advisory committee is the next descriptive variable that is examined. Only business leaders and policymakers were asked to respond to this question and only their responses are depicted in Table 9. Some educators responded to this survey item; however, these responses were deleted.

Area community colleges are required to have advisory committees for each vocational-technical program. In many colleges, committees are also organized for college transfer programs that have a career option. The population sampled was selected from a list the colleges supplied of individuals serving on the institution's advisory commit-

tees. Theoretically, all of the business leaders should have responded yes to this item on the survey. Eight percent responded that they were not members on a college curriculum or program advisory committee.

Table 9. Advisory committee membership of policymakers and business leaders

Group	Membership	Absolute Frequency of Respondents	Relative Percentage of Respondents
Total policy- makers and business leaders	Yes	96	59.6
	No	<u>65</u>	40.4
	Valid observations	161	
State Board	Yes	2	25.0
	No	<u>6</u>	75.0
	Valid observations	8	
Legislators	Yes	9	31.0
	No	<u>20</u>	69.0
	Valid observations	29	
Trustees	Yes	29	46.0
	No	<u>34</u>	54.0
	Valid observations	63	
Business Leaders	Yes	56	91.8
	No	<u>5</u>	8.2
	Valid observations	61	

The respondents may have interpreted the question to mean current service or they may have misunderstood the question.

Nearly fifty percent of the trustees and over thirty percent of the legislators have served on advisory committees. Service on an advisory committee for an area community college trustee is often how an

individual develops an interest in the area college leading to later service as a trustee.

Some area colleges have specifically requested that legislators serve on advisory committees to broaden their knowledge of and experience with the college curriculum and students.

To obtain a coefficient of internal consistency, prior to applying the analysis of variance techniques, the coefficient alpha formula was utilized. This test enabled a determination of reliability on that part of the variance which is true variance. The results of the coefficient alpha are depicted in the following table.

The reliability coefficients in the areas of instructional credit and instructional noncredit functions are very high alpha coefficients (+1.00 indicates all variance is true variance). Thus, these values indicate considerable internal consistency. The reliability coefficient for noninstructional functions is lower than the instructional functions; however, it does indicate internal consistency. The reliability coefficient for "current" noninstructional activities was a little low. However, since this is the first study in this area, the decision was made to continue with the statistical analysis of the data in this category. As a result of these values indicating internal consistency, the scales in these three classifications are additive.

Table 10. Reliability coefficient by function (weighted)

Function	Current	Future
Instructional credit	.84	.90
Instructional noncredit	.72	.92
Noninstructional	.50	.84

Note: A maximum alpha coefficient rating is +1.00.

Coding of the Instrument

A coded copy of the survey instrument is in Appendix B. Each statement of function related to an instructional credit or noncredit program or noninstructional activity was treated as two criterion variables for the purposes of the statistical analysis. The left-hand column contains the scale to indicate whether or not the respondent believed the specific function was currently being conducted by the area college that they were or had been associated with. The left-hand values will carry the numbers A = 2, U = 1, D = 0.

The right-hand column for each statement of function is coded with a scale to indicate whether or not the area college should be involved in the particular function in the future. The right-hand scale also provided an opportunity for the respondent to indicate their intensity of opinion by indicating the strength of agreement or disagreement. The right-hand side of the scale was weighted in accordance with the

values of Transformed Certainty Scale according to Warren, Klonglan and Sabri (1968, p. 21). The values of the various responses are as follows:

D	D	D	D	D	AD	A	A	A	A	A
5	4	3	2	1		1	2	3	4	5
0	3	5	6	7	8	9	10	11	13	16

A weighting of one-eighth was applied to the raw scores of each group to equate the contribution of the group to the grand mean or frequency in Sections A and B of the survey and to compensate for the use of non-uniform sampling fractions.

Analysis of the Data

Four null hypotheses were developed for testing purposes in an attempt to determine whether significant differences existed between groups of respondents in their perception of the variables utilized in this study. The null hypotheses were stated on pages 13 and 14 of the study.

The means, standard deviations, analysis of variance "F" values, and chi-square frequency values were determined for the variables utilized in the study. Tables and narrative comments in the remainder of this chapter address the null hypotheses and their relationship to the statistical findings and the research question.

In addition to the null hypotheses stated on pages 13 and 14, it was also feasible to examine other facets because of the nature of the data collected and the statistical procedures utilized. One area of

descriptive statistics explored relates to a ranking procedure for each statement of function or mission based on the mean obtained for the total groups on each statement of function.

The following table provides a ranking of statements of function by means of the total groups in the "current" subscale.

Table 11. Function statements listed in order indicative of the largest to the smallest mean of the total groups for the "current" subscale. Also, a ranking is given relative to the mean of the total groups for the "future" subscale

Statement	Category ^a	Weighted Mean		Rank Future
		Current	Future	
1. Conduct programs to train and retrain workers.	INC	1.98	14.79	2
2. Provide vocational and technical training to high school graduates.	IC	1.97	15.02	1
3. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED).	INC	1.96	14.10	5
4. Provide courses which lead to an Associate in Arts Degree which are transferable to baccalaureate degree granting institutions.	IC	1.94	14.29	3
5. Provide student personnel services such as counseling, job placement, and career information.	NI	1.91	14.26	4

^aIC = instructional credit program, NC = instructional noncredit program, NI = noninstructional activity.

Table 11. (continued)

Statement	Category ^a	Weighted Mean		Rank
		Current	Future	Future
6. Provide the first two years of college work including preprofessional education.	IC	1.89	13.91	6
7. Provide literacy skill development such as Adult Basic Education (ABE).	INC	1.89	13.68	7
8. Offer adult education courses in conjunction with community school districts.	INC	1.88	13.36	10
9. Conduct programs to upgrade skills of employed persons.	INC	1.86	13.48	9
10. Provide programs which provide entry level employment skills as well as baccalaureate degree (example: law enforcement or legal assistant).	IC	1.78	13.54	8
11. Provide developmental and remedial education for adults who are educationally disadvantaged.	INC	1.78	13.24	11
12. Provide educational activities that utilize the medium of mass communications such as radio and television.	INC	1.77	12.83	12
13. Provide occupational courses for employees of a specific company or corporation, even though the skills of knowledge obtained may not necessarily be transferrable to a different employment situation.	INC	1.74	11.91	25

Table 11. (continued)

Statement	Category ^a	Weighted Mean		Rank
		Current	Future	Future
14. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.	INC	1.70	12.71	14
15. Conduct apprenticeship-related instruction.	IC	1.70	12.56	16
16. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.	INC	1.68	10.17	32
17. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services.	NI	1.67	12.15	21
18. Provide in-plant training for employees as an incentive to retain current businesses in Iowa.	INC	1.67	12.83	13
19. Assist community industrial development groups seek new business and industry for the area.	NI	1.67	12.29	18
20. Provide community services to foster cultural, social and recreational opportunities in the geographic area.	NI	1.64	11.19	28
21. Provide education for persons who have academic, socio-economic, or other handicaps which prevent success in regular vocational education programs.	IC	1.62	11.92	24

Table 11. (continued)

Statement	Category ^a	Weighted Mean		Rank
		Current	Future	Future
22. Provide vocational and technical training for persons who are not enrolled in high school and have not completed high school.	IC	1.60	12.18	19
23. Provide programs for community leadership that are designed to help local leaders solve problems and undertake major community betterment programs.	INC	1.59	12.17	20
24. Provide programs for all students who may best serve themselves by enrolling in vocational and technical training while also enrolled in a local high school, public or private.	IC	1.54	12.42	17
25. Provide courses to high school students via interactive telecommunications in cooperation with community school districts.	IC	1.53	12.67	15
26. Provide research assistance to community economic development groups.	NI	1.50	11.24	27
27. Provide students of high school age with advanced college placement courses not taught at a student's high school while the student is also enrolled in high school.	IC	1.49	12.12	23

Table 11. (continued)

Statement	Category ^a	Weighted Mean		Rank
		Current	Future	
28. Provide educational programs for individuals in correctional institutions.	IC	1.45	11.07	29
29. Provide student housing for students who are unable to commute to campus.	NI	1.43	10.64	31
30. Provide enrichment programs for at-risk youth that make it possible for such students to complete high school and move on to higher education or employment.	IC	1.39	11.66	26
31. Coordinate the delivery of vocational and technical education to high school students.	IC	1.35	12.14	22
32. Coordinate the delivery of advanced placement courses or programs for gifted and talented students.	IC	1.31	10.77	30
33. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.	INC	1.19	9.89	33
34. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services.	NI	.93	8.08	34

As Table 11 points out, there is a very consistent perception of the current and future functions of the community colleges. Of the highest ranked means for current and future, the top ten were consistent with differences of only one or two positions in rank order among the top ten. The top five statements of function on the "current" subscale as rated on the basis of the total group means are 3, 2, 4, 26, 7 in descending order and these same statements appear in the following descending order on the future subscale: 2, 3, 26, 7, 4.

From these rankings it appears that respondents have a high expectation of area community colleges to provide occupational preparation for high school graduates and Iowa's workforce, provide transferable degree programs to senior institutions, and provide student personnel services such as counseling, job placement and career information.

There was slightly more difference between "current" and "future" subscales among the bottom five using the same criteria. Statements 28, 17, 34, 10, and 21 are in the bottom five on the "current" subscale. Statements 17 and 28 did not remain in the bottom five in the "future" subscale being replaced by statements 18 and 33. There appears to be a tendency to avoid endorsing those educational programs that they perceive the area community colleges are not now providing. Another possibility would be that these particular functions are not appropriate for area community colleges in the view of the respondents. The noteworthy exception is the coordination of the delivery of

vocational technical education to high school students and the offering of avocational or recreational courses, such as bridge, aerobics, and gourmet cooking. The respondents perceive greater emphasis should be given to the coordination of vocational education for high school students and providing courses which lead to an Associate in Arts degree and far less emphasis on avocational or recreational courses.

From a review of the total list of statements, it is evident that six statements changed their rankings by five or more positions. Three statements, 8, 9, and 11, received lower "future" rankings than "current" rankings and statements 5, 12, 16, 17, 19, and 20 received higher "future" rankings than "current" rankings. The six statements that are ranked higher are community college functions that have been undertaken by community colleges in recent years; in-plant training to attract new industry, in-plant training to retain existing industry, community leadership programs to assist with community renewal, and providing courses to high school students via telecommunications, coordinating the delivery of vocational education to high school students and providing vocational education to students while they are enrolled in high school. Each of these functions relates to unique functions of the colleges in terms of mission, such as economic development, leadership development, and a regional provider of services. Respondents perceive less emphases should be placed on occupational courses for a specific company that may not necessarily transfer to a

different employment situation; community services to foster cultural, social and recreational opportunities in the geographical area, and avocational or recreational courses.

Appendix D provides by groups the mean and standard deviation for variables categorized as instructional credit functions, instructional noncredit functions, and noninstructional functions. Also, the mean and standard deviations for the total groups are provided. The table has been separated by functional statements which in effect provide for two variables, "current" and "future."

Appendix D shows that presidents had the highest mean on 27 variables describing instructional credit and noncredit and non-instructional activities currently being conducted by area community colleges. The same group also had the greatest number (31) of high means on variables describing functions to be conducted in the future. From these data it appears that presidents believe that the mission of area community colleges is and should include a wide variety of functions.

Among the respondent groups, school superintendents most often recorded the lowest mean for "future" variables. Of the eleven variables, five of the lowest averages were in the category of instructional credit, five instructional noncredit, and one noninstructional function. This would tend to indicate that school superintendents hold the belief that the mission of the area community colleges should involve less variety of functions in the future.

Business leaders recorded the greatest number of means that were the lowest means among all groups for "current" variables. Of the eleven variables, four were instructional credit, six were instructional noncredit and one noninstructional function. Business leaders appear to be uninformed of the current variety of functions of the area community colleges but appear to be favorable to statements of mission in the future that involve a wider variety of activities than what they perceive the colleges currently offer.

Hypotheses Testing and Research Question

The major purpose of this study was to test four hypotheses as stated below:

Hypothesis One: There is no significant difference between educators, policymakers and business leaders and their perceptions of:

- a. current functions relating to the instructional credit programs of the area community colleges.
- b. functions that should exist relating to the instructional credit programs of the area community colleges.

One area of descriptive statistics explored relates to a ranking procedure for each particular statement categorized as instructional credit based on the mean obtained for the total groups on each particular statement.

Table 12 provides a ranking of statements in the instructional credit category. These statements address very similar statements of mission when compared to the mission in the Code of Iowa but contain more specific language such as a specific audience, the disadvantaged and handicapped, or a specific instructional technique such as the use of telecommunications.

The top four statements on the "current" subscale as rated on the basis of total group means are identical to the top four statements on the "future" subscale. It appears that respondents believe that area community colleges are currently conducting functions of the colleges related to instructional credit programs and should continue to conduct these functions in the future.

Although there was no difference in the top four between "current" and "future" subscales, the bottom four functions between "current" and "future" subscales include two functions that are ranked higher in the "future" subscale. Statement 16 was ranked number 10 in the "current" subscale and number 5 in the "future" subscale. Statement 17 was ranked number 13 in the "current" subscale and number 9 on the "future" subscale. These statements describe the regional delivery of telecommunications and vocational education courses to high school students.

Table 12 points out that the original mission for the area community colleges as stated in the Code of Iowa is reaffirmed by the respondents as both current and future functions. Of the top ten statements in the instructional credit category for "current" and

"future" functions, four are statements taken directly out of the Code of Iowa, statements 2, 1, 23, and 5. Four other statements (26, 27, 32, 22) in the top ten can be inferred from the statements in the Code of Iowa. Based on these data, it would appear that somewhat more emphasis is desired in the future for providing courses via telecommunications to high school students and less emphasis on providing vocational education for persons who are not enrolled in high school and have not completed high school.

Appendix D, Table 28 provides by groups of mean and standard deviation for each variable contained in the instructional credit category. Also the mean and standard deviations for the total groups are provided.

The following paragraphs highlight some of the subgroups and variables that appear to vary considerably from the average of the total group as presented in Appendix D. The variables in the instructional credit category that could be classified in this manner are the response to function statements 6, 19, 23, and 24 by the presidents' subgroup. This group's mean response in the "current" and "future" categories are considerably above the mean calculated for the total group. Legislators' mean response to statement 34 was considerably below the mean calculated for the total group.

Table 12. Instructional credit function statements listed in order indicative of the largest to the smallest weighted mean of the total groups for the "current" subscale. Also, a ranking is given relative to the weighted mean of the total groups for the "future" subscale

Statement	Weighted Mean		Rank
	Current	Future	Future
1. Provide vocational and technical training to high school graduates.	1.97	15.02	1
2. Provide courses which lead to an Associate in Arts Degree which are transferrable to baccalaureate degree granting institutions.	1.94	14.29	2
3. Provide the first two years of college work including preprofessional education.	1.89	13.91	3
4. Provide programs which provide entry level employment skills as well as baccalaureate degree (example: law enforcement or legal assistant).	1.78	13.54	4
5. Conduct apprenticeship-related instruction.	1.70	12.56	6
6. Provide education for persons who have academic, socioeconomic, or other handicaps which prevent success in regular vocational education programs.	1.62	11.92	11
7. Provide vocational and technical training for persons who are not enrolled in high school and have not completed high school.	1.60	12.18	8
8. Provide programs for all students who may best serve themselves by enrolling in vocational and technical training while also enrolled in a high school, public or private.	1.54	12.42	7

Table 12. (continued)

Statement	Weighted Mean		Rank
	Current	Future	Future
9. Provide students of high school age with advanced placement college courses not taught at a student's high school while the student is also enrolled in high school.	1.49	12.12	10
10. Provide courses to high school students via interactive telecommunications in cooperation with community school districts.	1.53	12.67	5
11. Provide enrichment programs for at-risk youth that make it possible for such students to complete high school and move on to higher education or employment.	1.39	11.66	12
12. Provide educational programs for individuals in correctional institutions.	1.45	11.07	13
13. Coordinate the delivery of vocational and technical education to high school students.	1.35	12.14	9
14. Coordinate the delivery of advanced placement courses or programs for gifted and talented students.	1.31	10.77	14

Statement number 6 relates to dual enrollment of high school students in community college courses for high school and college credit; statement number 18 relates to courses for persons in correctional institutions; statement number 23 relates to vocational education programs for students not enrolled in high school and who have not

graduated; statement 34 relates to coordination of the delivery of advanced placement courses for gifted and talented students. The responses to these instructional credit function statements would indicate that the presidents' group is more confident on the average than these functions are now being conducted and should be conducted in the future. However, legislators as a group are more undecided on the average as to whether or not the coordination of advanced placement courses for gifted and talented students is a current function of the area college.

Other instructional credit functions that the presidents' group mean response exceeded the total group mean response concerning future functions included offering courses to high school students via telecommunications, coordinating the delivery of vocational education to high school students, and offering vocational education programs to disadvantaged and handicapped students. Department of Education personnel mean response to the statement concerning courses for individuals in correctional institutions in the future and the State Board member mean response to the statement concerning offering courses via telecommunications in the future were also above the mean response of the total group. Only statement number 1, providing the first two years of college work including preprofessional education, received a considerably lower mean response than the mean response of the total group. This group response indicates less support for this instructional credit function to be conducted in the future.

An analysis of variance procedure was then completed as a method of comparing the means for all groups. Tables 13 and 14, which follow, show the results of this statistical application.

Table 13. A comparison of group means on "current" subscale for the instructional credit programs

Groups	\bar{X}	s	N	F value
Presidents	25.93	5.92	15	15.62**
Faculty	21.29	2.62	241	
Superintendents	21.45	3.93	84	
Department of Education	24.67	6.04	15	
State Board	21.78	10.76	9	
Legislators	20.00	7.37	32	
Trustees	23.46	4.65	68	
Business Leaders	20.61	4.94	66	

**Significant at the .01 level.

Table 14. A comparison of group means on "future" subscale for the instructional credit programs

Groups	\bar{X}	s	N	F value
Presidents	201.33	51.70	15	17.99**
Faculty	164.68	17.88	242	
Superintendents	155.48	22.64	84	
Department of Education	187.80	31.06	15	
State Board	168.00	114.82	9	
Legislators	157.44	53.27	32	
Trustees	177.89	38.68	68	
Business Leaders	154.85	35.49	65	

**Significant at the .01 level.

ANOVA Tables 13 and 14 indicate a highly significant overall F value of 15.62, that is, one significant at the .01 level. In an attempt to determine the exact area of differences, Scheffé tests were conducted between each of the possible pairs of means. These Scheffé tests indicated that when college presidents were compared with business leaders and legislators, highly significant differences beyond the .01 level were obtained.

This same statistical procedure resulted in an overall F value of 17.99 when comparing all eight groups, indicating a highly significant difference beyond the .01 level. The Scheffé tests identified differences between college presidents and legislators, business leaders, and school superintendents.

Since the only significant difference occurred when legislators and business leaders were compared with college presidents relating to "current" functions, it is not possible to reject null hypothesis number one, part a. Stated another way, perceptions of the respondents related to current instructional credit functions are not significantly different. It is also impossible to reject part b because the only difference found was between college presidents, legislators, and business leaders. There were no significant differences between other education subgroups, policymakers, and business leaders and their perceptions of instructional credit functions that should exist in the area community colleges.

Hypothesis Two: There is no significant difference between educators, policymakers, and business leaders and their perceptions of:

- a. current functions relating to the instructional noncredit programs of the area colleges.
- b. future functions relating to the instructional noncredit programs of the area colleges.

The statements contained in the instructional noncredit category are listed in Table 15 by means of the total groups in the "current" subscale.

Table 15. Instructional noncredit function statements listed in order of the largest to the smallest weighted mean of the total groups for the "current" subscale. Also, a ranking is given relating to the weighted mean of the total groups for the "future" subscale

Statement	Weighted Mean		Rank
	Current	Future	Future
1. Conduct programs to train and retrain workers.	1.98	14.79	1
2. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED).	1.96	14.10	2
3. Provide literacy skill development such as Adult Basic Education	1.89	13.68	3
4. Offer adult education courses in conjunction with community school districts.	1.88	13.36	5
5. Conduct programs to upgrade skills of employed persons.	1.86	13.48	4

Table 15. (continued)

Statement	Weighted Mean		Rank
	Current	Future	Future
6. Provide developmental and remedial education for adults who are educationally disadvantaged.	1.78	13.24	6
7. Provide educational activities that utilize the medium of mass communications such as radio and television.	1.77	12.83	7
8. Provide occupational courses for employees of a specific company or corporation, even though the skills or knowledge obtained may not necessarily be transferrable to a different employment situation.	1.74	11.91	11
9. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.	1.69	12.71	9
10. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.	1.68	10.17	12
11. Provide in-plant training for employees as an incentive to retain current businesses in Iowa.	1.67	12.83	8
12. Provide programs for community leadership that are designed to help local leaders solve problems and undertake major community betterment programs.	1.58	12.17	10
13. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.	1.19	9.89	13

As Table 15 points out, all of the instructional noncredit statements received an average of 1.5 or higher on a two point scale except statement 10. This is an indication that respondents are quite certain as to the current mission of the area community colleges as it relates to noncredit offerings. Ten out of thirteen of the instructional noncredit functions received an average score of 12.00 or above, again strongly affirming the instructional noncredit functions for the future. The exception to this was the statement concerning the operation of sheltered workshops by area colleges. Respondents were uncertain that it is a current function or should be a future function of area colleges. Since only two of fifteen area colleges have operated sheltered workshops, the respondents may be unfamiliar with this function on an area college campus.

The top seven statements on the current subscale as rated on the basis of the total group means are 3, 4, 24, 29, 25, and 13 in descending order. It is noteworthy that all of these statements are in the top seven when they are considered in relationship to the future subscale. All of these statements that were among the top seven are directly stated in the Code of Iowa or could be inferred from the statements in the Code. Again, the responses are a strong affirmation of the current mission statement of the area colleges.

Table 29 in Appendix D indicates that the instructional noncredit function statement number 10, operate sheltered workshops, was singled out by legislators as being a function that they disagreed with as a

current and future function. Other future instructional noncredit functions that the presidents group expressed somewhat higher opinions than the other groups include offering avocational/recreational courses and economic development activities such as occupational courses for a specific company's employees that are not transferrable, in-plant training for new business and existing business.

Table 16, which follows, gives a comparison of group mean utilizing the analysis of variance method for the instructional noncredit variables. Also the F value is reported which was obtained for the individual variable ANOVAS.

Table 16. Comparison of weighted group means and standard deviations on items concerning instructional noncredit programs for the "current" subscale

Statement	\bar{X}	s	N	F value
3. Conduct programs to train and retrain workers.				
Presidents	2.00	.00	15	1.02
Faculty	1.98	.08	240	
Superintendents	1.96	.17	84	
Department of Education	2.00	.00	15	
State Board	2.00	.00	9	
Legislators	1.97	.26	32	
Trustees	1.95	.27	67	
Business Leaders	1.95	.21	66	

Table 16. (continued)

Statement	\bar{X}	s	N	F value
4. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED)				
Presidents	2.00	.00	15	3.82
Faculty	1.95	.15	240	
Superintendents	1.98	.19	84	
Department of Education	2.00	.00	15	
State Board	2.00	.00	9	
Legislators	1.97	.25	32	
Trustees	1.97	.24	67	
Business Leaders	1.83	.45	66	
9. Provide occupational courses for employees of a specific company or corporation, even though the skills or knowledge obtained may not necessarily be transferrable to a different employment situation.				
Presidents	2.00	.00	15	9.89**
Faculty	1.73	.31	241	
Superintendents	1.35	.75	83	
Department of Education	1.93	.54	15	
State Board	1.78	1.19	9	
Legislators	1.67	.87	30	
Trustees	1.85	.46	67	
Business Leaders	1.56	.68	66	

**Significant at the .01 level.

Table 16. (continued)

Statement	\bar{X}	s	N	F value
10. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.				
Presidents	1.27	1.86	15	4.12
Faculty	1.19	.44	241	
Superintendents	1.04	.79	83	
Department of Education	1.40	1.74	15	
State Board	1.33	1.92	9	
Legislators	.75	1.16	32	
Trustees	1.21	.93	67	
Business Leaders	1.30	.81	66	
11. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.				
Presidents	2.00	.00	15	7.91
Faculty	1.64	.37	240	
Superintendents	1.40	.79	84	
Department of Education	2.00	.00	15	
State Board	1.67	1.92	9	
Legislators	1.47	1.21	32	
Trustees	1.76	.65	67	
Business Leaders	1.51	.75	66	
12. Provide programs for community leadership that are designed to help local leaders solve programs and undertake major community betterment programs.				
Presidents	1.87	.74	15	3.19
Faculty	1.58	.38	240	
Superintendents	1.54	.64	84	
Department of Education	1.60	1.55	15	
State Board	1.33	1.11	9	
Legislators	1.55	1.11	31	
Trustees	1.66	.67	68	
Business Leaders	1.56	.63	66	

Table 16. (continued)

Statement	\bar{X}	s	N	F value
13. Provide developmental and remedial education for adults who are educationally disadvantaged.				
Presidents	2.00	.00	15	4.69
Faculty	1.88	.22	241	
Superintendents	1.67	.56	84	
Department of Education	1.80	.87	15	
State Board	1.78	1.19	9	
Legislators	1.70	.86	30	
Trustees	1.84	.47	68	
Business Leaders	1.59	.63	66	
15. Provide educational activities that utilize the medium of mass communications such as radio and television.				
Presidents	1.87	1.09	15	2.24
Faculty	1.72	.34	240	
Superintendents	1.73	.54	84	
Department of Education	1.87	1.09	15	
State Board	1.78	1.19	9	
Legislators	1.84	.64	32	
Trustees	1.76	.59	68	
Business Leaders	1.56	.64	66	
19. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.				
Presidents	2.00	.00	15	10.87**
Faculty	1.61	.35	241	
Superintendents	1.36	.74	84	
Department of Education	1.80	.87	15	
State Board	1.89	.90	9	
Legislators	1.63	1.02	32	
Trustees	1.89	.39	68	
Business Leaders	1.41	.82	66	

Table 16. (continued)

Statement	\bar{X}	s	N	F value
20. Provide in-plant training for employees as an incentive to retain current businesses in Iowa.				
Presidents	1.87	1.09	15	7.43
Faculty	1.58	.36	240	
Superintendents	1.43	.69	84	
Department of Education	1.87	.74	15	
State Board	1.89	.90	9	
Legislators	1.53	1.03	32	
Trustees	1.81	.52	68	
Business Leaders	1.42	.79	66	
24. Conduct programs to upgrade skills of employed persons.				
Presidents	2.00	.00	15	7.53
Faculty	1.91	.18	239	
Superintendents	1.79	.47	84	
Department of Education	1.93	.54	15	
State Board	1.56	1.97	9	
Legislators	1.81	.69	31	
Trustees	1.94	.34	68	
Business Leaders	1.92	.32	65	
25. Provide literacy skill development such as Adult Basic Education (ABE).				
Presidents	2.00	.00	15	4.96**
Faculty	1.92	.16	237	
Superintendents	1.83	.41	84	
Department of Education	2.00	.00	15	
State Board	1.89	.90	9	
Legislators	1.87	.49	31	
Trustees	1.87	.48	67	
Business Leaders	1.69	.53	65	

Table 16. (continued)

Statement	\bar{X}	s	N	F value
29. Offer adult education courses in conjunction with community school districts.				
Presidents	2.00	.00	15	4.55
Faculty	1.87	.22	238	
Superintendents	1.96	.22	84	
Department of Education	2.00	.00	15	
State Board	1.78	1.19	9	
Legislators	1.72	.98	32	
Trustees	1.91	.37	68	
Business Leaders	1.81	.53	65	

F values obtained for items 9, 19, and 25 were highly significant at or beyond the .01 level. As a result of this finding, Scheffé tests were conducted comparing each group with each other group for the above variables.

On item 9 (current), an overall F value of 9.89, which is highly significant beyond the .01 level. Superintendents' means were different than college faculty and trustees' means when the Scheffé tests were used. Superintendents of local school districts are the most uncertain that occupational courses for employees of a specific company are offered by the area college when skills and knowledge may not transfer to a different employment setting.

An overall F value of 10.87, significant at or beyond the .01 level, was obtained on variable 19 (current). Trustees' means were

different than superintendents and business leaders. Again, superintendents were less certain that an economic development activity, in-plant training for employees as an incentive to attract new businesses to Iowa is a current function of the area colleges.

An overall F value of 4.96, significant at or beyond the .01 level, was obtained for variable 25 (current). College faculty means were different than business leaders' means when Scheffe was used. Business leaders were less certain that literacy skill development such as Adult Basic Education (ABE) is a current function of the area college.

Null hypothesis number two, part a cannot be rejected because of the results obtained and referred to before and in the table. The perceptions of the respondents in the various groups are not significantly different in the "current" functions in the instructional noncredit category.

Table 16 provides the results of the analysis of variance treatment to groups on each instructional noncredit variable in the "future" classification.

F values obtained for item variables 4, 9, 13, 15, 19, 20, 24, and 25 were highly significant at or beyond the .01 level. As a result of this finding, Scheffe tests were conducted comparing each group with each other group for these variables.

Table 17. Comparison of weighted group means and standard deviations on items concerning instructional noncredit programs for the "future" subscale

Statement	\bar{X}	s	N	F value
3. Conduct programs to train and retrain workers.				
Presidents	16.00	.00	15	10.82
Faculty	14.98	1.18	241	
Superintendents	13.98	2.25	84	
Department of Education	15.80	1.63	15	
State Board	13.56	8.49	9	
Legislators	14.41	3.49	32	
Trustees	15.26	1.95	65	
Business Leaders	14.33	2.52	63	
4. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED)				
Presidents	15.60	2.22	15	8.80**
Faculty	14.42	1.38	240	
Superintendents	12.79	2.69	84	
Department of Education	14.33	4.75	15	
State Board	13.33	8.69	9	
Legislators	14.03	3.72	32	
Trustees	15.00	2.13	66	
Business Leaders	13.27	3.22	63	

**Significant at the .01 level.

Table 17. (continued)

Statement	\bar{X}	s	N	F value
9. Provide occupational courses for employees of a specific company or corporation, even though the skills or knowledge obtained may not necessarily be transferrable to a different employment situation.				
Presidents	15.07	4.24	15	19.46**
Faculty	12.31	1.84	235	
Superintendents	9.09	3.57	81	
Department of Education	12.00	5.51	15	
State Board	11.25	11.49	8	
Legislators	11.34	4.33	29	
Trustees	13.39	2.64	67	
Business Leaders	10.61	4.18	64	
10. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.				
Presidents	10.21	10.73	14	7.35
Faculty	9.84	2.45	233	
Superintendents	9.49	3.79	79	
Department of Education	11.07	7.58	14	
State Board	11.62	15.49	8	
Legislators	6.35	6.98	31	
Trustees	10.06	5.01	66	
Business Leaders	10.69	4.77	62	

Table 17. (continued)

Statement	\bar{X}	s	N	F value
11. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.				
Presidents	13.20	5.40	15	11.73
Faculty	10.82	2.32	233	
Superintendents	8.73	3.89	82	
Department of Education	10.60	5.38	15	
State Board	8.12	13.96	8	
Legislators	8.84	5.40	31	
Trustees	11.32	3.83	68	
Business Leaders	9.39	4.66	62	
12. Provide programs for community leadership that are designed to help local leaders solve problems and undertake major community betterment programs.				
Presidents	14.33	4.106	15	7.45
Faculty	12.65	1.788	227	
Superintendents	11.40	2.571	80	
Department of Education	12.50	4.346	14	
State Board	10.78	14.356	9	
Legislators	11.26	5.663	31	
Trustees	12.97	3.386	65	
Business Leaders	11.43	3.769	62	
13. Provide developmental and remedial education for adults who are educationally disadvantaged.				
Presidents	14.80	4.44	15	7.76
Faculty	13.94	1.51	239	
Superintendents	12.17	2.71	84	
Department of Education	13.73	5.92	15	
State Board	12.72	9.09	9	
Legislators	12.77	4.81	30	
Trustees	13.89	3.09	66	
Business Leaders	11.83	3.01	64	

Table 17. (continued)

Statement	\bar{X}	s	N	F value
15. Provide educational activities that utilize the medium of mass communications such as radio and television.				
Presidents	14.93	4.01	15	12.46**
Faculty	12.35	1.78	237	
Superintendents	11.41	2.55	83	
Department of Education	13.60	5.26	15	
State Board	13.22	9.29	9	
Legislators	12.16	4.27	32	
Trustees	13.75	2.86	67	
Business Leaders	11.08	3.62	61	
19. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.				
Presidents	15.60	2.22	15	18.49**
Faculty	12.86	1.74	236	
Superintendents	10.25	3.41	81	
Department of Education	12.73	6.13	15	
State Board	11.89	7.49	9	
Legislators	12.31	5.66	32	
Trustees	14.40	2.83	67	
Business Leaders	11.50	3.66	64	
20. Provide in-plant training for employees as an incentive to retain current businesses in Iowa.				
Presidents	15.60	2.22	15	15.89**
Faculty	13.02	1.74	236	
Superintendents	10.70	3.25	81	
Department of Education	12.73	5.92	15	
State Board	12.22	8.35	9	
Legislators	12.37	5.17	32	
Trustees	14.22	2.96	67	
Business Leaders	11.66	3.50	64	

Table 17. (continued)

Statement	\bar{X}	s	N	F value
24. Conduct programs to upgrade skills of employed persons.				
Presidents	15.67	2.72	15	16.18**
Faculty	14.05	1.37	237	
Superintendents	12.01	2.64	84	
Department of Education	14.27	5.06	15	
State Board	11.78	10.32	9	
Legislators	12.70	4.16	30	
Trustees	14.36	2.36	67	
Business Leaders	12.98	2.82	63	
25. Provide literacy skill development such as Adult Basic Education (ABE).				
Presidents	15.80	1.63	15	13.35**
Faculty	14.08	1.49	234	
Superintendents	12.24	2.71	82	
Department of Education	14.20	4.72	15	
State Board	12.56	9.22	9	
Legislators	13.29	4.14	31	
Trustees	14.56	2.61	68	
Business Leaders	12.59	3.05	61	
29. Offer adult education courses in conjunction with community school districts.				
Presidents	15.13	3.88	15	8.03
Faculty	13.69	1.63	236	
Superintendents	13.02	2.38	84	
Department of Education	13.40	5.44	15	
State Board	12.56	9.22	9	
Legislators	12.06	4.89	32	
Trustees	14.31	2.49	67	
Business Leaders	12.67	3.39	63	

On item 4 (future), an overall F value of 8.80, which is significant beyond the .01 level, was obtained. Superintendents' means were different than college faculty and trustees means using Scheffé tests. School superintendents were the least certain that area colleges should provide programs to enable students to obtain their high school equivalency diploma or GED.

An overall F value of 19.46, significant at or beyond the .01 level, was obtained on item variable 9 (future). School superintendents' means were different than college presidents, trustees, and faculty means using Scheffé tests. Also, significant differences were found when comparing business leaders with college presidents and trustees. School superintendents and trustees only slightly agree that providing occupational courses for employees of a specific company that may not be transferable to a different employment situation should be a future function of an area college.

In item 13 (future), an overall F value of 7.76, significant at the .01 level, was obtained. College faculty means were different than business leaders' and school superintendents' means using Scheffé tests. College faculty were more certain that developmental and remedial education for adults who are educationally disadvantaged is a future function of community colleges.

Applying the Scheffé test to the various groups for item 15 resulted in the finding of an overall F value of 12.46, which is highly significant beyond the .01 level. College presidents' and trustees'

means were different than superintendents' and business leaders' means using the Scheffé tests. College presidents and trustees are more certain that educational activities that utilize the medium of mass communications such as radio and television should be a future function of area colleges than are business leaders and school superintendents.

Scheffé tests on groups for three common functions related to economic development activities (items 19, 20, and 24) yielded three highly significant F values. For item 19, the F value was 10.87; for item 20, the value was 15.89; and for item 24, the F value was 16.18. Each of the values was significant at the .01 level. For items 19 and 20, the same subgroups' responses yielded differences. College presidents, trustees, and faculty were much more certain that in-plant training as an incentive to attract new or retain existing businesses were future functions of area colleges than were the business leaders and school superintendents. However, on item 24, programs to upgrade skills of employed persons, school superintendents were the group that was less confident that this should be a future function than college presidents, trustees, and faculty. It appears that business leaders are less confident that area colleges should provide training as an economic incentive than most educators or policymakers; but they are more confident that the area colleges should conduct programs to upgrade skills of employed persons. School superintendents, when compared to other educators, only slightly agree that educational programs designed to be economic development incentives and the upgrading of employees' skills are future functions.

An overall F value of 13.35, significant at the .01 level, was obtained on item 25. School superintendents' means were different than presidents', trustees', and college faculty means when Scheffe' tests were used. School superintendents were less confident that literacy skill development such as Adult Basic Education (ABE) should be a future function.

An analysis of variance procedure was then completed as a method of comparing the means for all groups. Tables 18 and 19, which follow, show the results of this statistical application.

Table 18. A comparison of weighted group means for "current" subscale on the instructional noncredit programs

Groups	\bar{X}	s	N	F value
Presidents	24.87	3.45	15	13.83
Faculty	22.45	1.81	241	
Superintendents	21.01	3.28	84	
Department of Education	24.20	4.07	15	
State Board	22.67	7.06	9	
Legislators	21.09	5.38	32	
Trustees	23.28	3.52	68	
Business Leaders	21.06	4.46	66	

Only ANOVA Table 19 indicates a highly significant overall F value, that is, significant at the .01 level. Scheffe' tests were conducted between each of the possible combination of groups. These tests resulted in means that were different when college presidents, faculty, and school superintendents in the educator group were compared to the

means of trustees and legislators in the policymaker group and the means of business leaders.

No significant difference occurred when the subgroups were compared related to "current" functions, therefore, it is not possible to reject null hypothesis number two, part a. Perceptions of the respondents related to current instructional noncredit functions are not significantly different. Since significant differences between education subgroups, policymakers, and business leaders were found, part b of hypothesis two must be rejected. There is significant difference between three educator groups, policymakers (legislators) and business leaders and their perceptions of instructional noncredit functions that should exist in the area community college.

Table 19. A comparison of weighted group means for "future" subscale on the instructional noncredit programs

Groups	\bar{X}	s	N	F value
Presidents	191.27	32.09	15	24.47**
Faculty	165.44	14.29	241	
Superintendents	144.48	20.59	84	
Department of Education	169.40	35.54	15	
State Board	152.22	100.67	9	
Legislators	150.00	39.89	32	
Trustees	173.87	29.58	68	
Business Leaders	148.78	29.20	66	

**Significant at the .01 level.

Hypothesis Three: There is no significant difference between educators, policymakers, and business leaders and their perceptions of:

- a. current functions relating to the noninstructional activities of the area community colleges.
- b. future functions relating to the noninstructional activities of the area community colleges.

Descriptive statistics were used to rank each statement categorized as noninstructional based on the mean obtained for the total groups on each particular statement.

Table 20 provides a ranking of statements in the noninstructional subscale.

Table 20. Noninstructional function statements listed in order indicative of the largest to the smallest weighted mean of the total groups for the "current" subscale. Also, a ranking is given relative to the weighted mean of the total groups for the "future" subscale

Statement	Weighted Mean		Rank Future
	Current	Future	
1. Provide student personnel services such as counseling, job placement, and career information.	1.91	14.26	1
2. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services.	1.67	12.15	3
3. Assist community industrial development groups seek new business and industry for the area.	1.67	12.29	2

Table 20. (continued)

Statement	Weighted Mean		Rank
	Current	Future	
4. Provide community services to foster cultural, social and recreational opportunities in the geographic area.	1.64	11.19	5
5. Provide research assistance to community economic development groups.	1.50	11.24	4
6. Provide student housing for students who are unable to commute to campus.	1.42	10.64	6
7. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services.	.93	8.08	7

The statements on the "current" subscale as rated on the basis of total group means are almost identical to the statements on the "future" subscale. Only two statements reversed positions in the "future" subscale indicating a very slight perceived preference for more emphasis in the future on assistance to community industrial development groups in the form of research assistance and help seeking new business and industry for the area.

Four of the seven groups means on the "current" subscale were 1.5 or greater indicating agreement that the colleges are involved in functions such as student personnel services, specialized assistance to small businesses, economic development activities and community

services (cultural, social, and recreational), and generally agree that the colleges should carry out these functions in the future.

Two statements, item 33 regarding student housing and item 21 providing a common location for human service agencies were ranked the lowest as "current" and "future" functions. Even though for several years services such as vocational rehabilitation and employment services have been available at area colleges, respondents were uncertain that colleges currently provide a common location for human service agencies or that they should in the future. Student housing has also been available on several area college campuses for several years and respondents tend to agree that it should be provided in the future for those students who are unable to commute to campus.

Appendix D, Table 30 provides by groups the mean and standard deviation for statements categorized as noninstructional functions. Also the weighted mean and weighted standard deviation for the total groups are provided.

Table 21, which follows, gives a comparison of group means utilizing the analysis of variance method for the noninstructional variables. Also the F value is reported which was obtained for the individual variable ANOVAS.

Table 21. Comparison of weighted group means and weighted standard deviations on items concerning noninstructional activities for the "current" subscale

Statement	\bar{X}	s	N	F value
7. Provide student personnel services such as counseling, job placement, and career information.				6.83
Presidents	2.00	.00	15	
Faculty	1.93	.17	241	
Superintendents	1.82	.42	84	
Department of Education	2.00	.00	15	
State Board	1.67	1.92	9	
Legislators	1.93	.36	31	
Trustees	1.91	.37	67	
Business Leaders	1.98	.12	66	
8. Provide community services to foster cultural, social and recreational opportunities in the geographic area.				5.03
Presidents	1.93	.54	15	
Faculty	1.75	.32	241	
Superintendents	1.42	.74	83	
Department of Education	1.73	1.25	15	
State Board	1.50	2.05	8	
Legislators	1.45	1.17	31	
Trustees	1.76	.60	67	
Business Leaders	1.54	.73	66	

Table 21. (continued)

Statement	X	s	N	F value
14. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services.				13.82**
Presidents	2.00	.00	15	
Faculty	1.60	.35	240	
Superintendents	1.27	.70	84	
Department of Education	1.87	.74	15	
State Board	1.44	1.97	9	
Legislators	1.81	.85	32	
Trustees	1.93	.31	68	
Business Leaders	1.47	.75	66	
21. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services.				2.96
Presidents	1.27	1.86	15	
Faculty	.88	.45	239	
Superintendents	.82	.77	84	
Department of Education	.93	2.02	15	
State Board	1.11	2.50	9	
Legislators	.69	1.12	32	
Trustees	.88	.86	68	
Business Leaders	.83	.80	65	

**Significant at .01 level.

Table 21. (continued)

Statement	\bar{X}	s	N	F value
30. Assist community industrial development groups seek new business and industry for the area.				8.90**
Presidents	2.00	.00	15	
Faculty	1.64	.34	239	
Superintendents	1.56	.62	84	
Department of Education	1.80	.87	15	
State Board	1.50	2.05	8	
Legislators	1.55	1.10	31	
Trustees	1.93	.35	68	
Business Leaders	1.37	.78	65	
31. Provide research assistance to community economic development groups.				5.14**
Presidents	1.73	1.25	15	
Faculty	1.39	.39	238	
Superintendents	1.43	.67	84	
Department of Education	1.47	1.35	15	
State Board	1.22	2.26	9	
Legislators	1.48	1.04	31	
Trustees	1.82	.51	68	
Business Leaders	1.46	.71	65	
33. Provide student housing for students who are unable to commute to campus.				9.90
Presidents	1.93	.54	15	
Faculty	1.37	.45	239	
Superintendents	1.14	.82	83	
Department of Education	1.80	1.18	15	
State Board	1.33	2.35	9	
Legislators	1.03	1.37	31	
Trustees	1.44	.81	68	
Business Leaders	1.32	.87	65	

F values obtained for items 14, 30, and 31 were significant at or beyond the .01 level. As a result of this finding, Scheffé tests were conducted comparing the subgroups for these variables.

On item 14 (current), an overall F value of 13.82, which is highly significant beyond the .01 level, was obtained. School superintendents' means were different than the means of college presidents, trustees, legislators, and faculty when Scheffé tests were used, and business leaders' means were different than trustees' mean. School superintendents and business leaders were least certain that offering specialized assistance to small businesses to nurture their development, such as incubator programs and services, is a current function of area colleges.

Scheffé tests on items 30 and 31 were conducted as a result of overall F values of 8.90 and 5.40 respectively, which were significant at the .01 level. Trustees' and business leaders' means were different. Trustees were much more certain that area colleges provide assistance to community industrial development groups seeking new businesses for the area and trustees were more certain than faculty that colleges currently provide research assistance to economic development groups.

Null hypothesis number three, part a, cannot be rejected because of the results obtained and described in this section. The perceptions of the respondents in the various groups are not significantly different in the "current" functions in the noninstructional subscale.

Table 22 is a companion table to number 20 and provides the results of the analysis of variance treatment to groups on each noninstructional variable in the "future" classification.

Table 22. Comparison of weighted group means and weighted standard deviations on items concerning noninstructional activities for the "future" subscale

Statement	\bar{X}	s	N	F value
7. Provide student personnel services such as counseling, job placement, and career information.				11.11**
Presidents	15.60	2.22	15	
Faculty	15.00	1.16	239	
Superintendents	13.01	2.77	81	
Department of Education	15.21	3.42	14	
State Board	13.33	8.80	9	
Legislators	13.10	3.94	31	
Trustees	14.71	2.61	66	
Business Leaders	14.08	2.55	64	
8. Provide community services to foster cultural, social and recreational opportunities in the geographic area.				14.10**
Presidents	13.93	5.00	15	
Faculty	12.59	1.80	236	
Superintendents	9.90	3.06	48	
Department of Education	11.33	6.24	15	
State Board	8.75	5.52	8	
Legislators	9.45	6.62	31	
Trustees	12.48	3.53	65	
Business Leaders	10.74	3.76	62	

**Significant at the .01 level.

Table 22. (continued)

Statement	\bar{X}	s	N	F value
14. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services.				19.94**
Presidents	14.87	4.34	15	
Faculty	11.91	1.89	235	
Superintendents	10.04	3.19	77	
Department of Education	13.80	6.17	15	
State Board	10.89	9.93	9	
Legislators	11.75	4.61	32	
Trustees	13.71	2.71	68	
Business Leaders	9.98	4.34	63	
21. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services.				10.36
Presidents	11.13	6.25	15	
Faculty	8.91	2.58	226	
Superintendents	6.85	3.98	78	
Department of Education	10.07	9.25	15	
State Board	7.78	13.77	9	
Legislators	5.50	6.64	32	
Trustees	8.33	5.54	66	
Business Leaders	6.64	4.56	61	

Table 22. (continued)

Statement	\bar{X}	s	N	F value
30. Assist community industrial development groups seek new business and industry for the area.				21.84**
Presidents	15.67	2.72	15	
Faculty	12.36	1.88	236	
Superintendents	10.94	2.91	81	
Department of Education	12.00	6.06	15	
State Board	10.75	10.64	8	
Legislators	10.42	6.74	31	
Trustees	14.70	2.31	66	
Business Leaders	11.20	3.99	60	
31. Provide research assistance to community economic development groups.				8.60**
Presidents	13.20	6.01	15	
Faculty	11.44	2.00	229	
Superintendents	10.49	3.06	80	
Department of Education	11.00	6.21	15	
State Board	9.56	15.55	9	
Legislators	10.10	6.16	31	
Trustees	13.45	3.65	66	
Business Leaders	10.65	3.81	63	
33. Provide student housing for students who are unable to commute to campus.				19.27**
Presidents	15.00	4.64	15	
Faculty	11.79	2.32	235	
Superintendents	8.45	4.49	80	
Department of Education	12.33	7.44	15	
State Board	9.13	17.20	8	
Legislators	7.03	7.63	31	
Trustees	10.69	4.86	65	
Business Leaders	10.32	4.53	60	

F values significant at or beyond the .01 level were obtained on six of the seven item variables categorized as noninstructional functions (future).

On item 7, an overall F value of 11.11 was obtained. Faculty means were different than superintendents' means when using Scheffé tests. Superintendents were less certain than faculty that personnel services should be provided in the future.

Scheffé tests were conducted on item 8 after an overall F value of 14.10 was reported. Faculty member means were different than both superintendents' and legislators' means when Scheffé tests were used. Faculty members were more certain than both superintendents and legislators that area colleges should provide community services to foster cultural, social and recreational opportunities in the geographic area in the future..

As a result of the ANOVA procedure, overall F values that are highly significant were reported for three statements (14, 30, and 31) that relate to economic development activities. The overall F value on item 14, specialized assistance to small businesses, was 19.94; item 30, assistance to community industrial development groups, had an overall F value of 21.84; and item 31, research assistance to community economic development groups, had an overall F value of 8.60. On all three items, presidents' and trustees' means were different than superintendents', business leaders', legislators', and faculty means when Scheffé tests were used. Presidents and trustees were very

certain that these economic development activities are appropriate future functions. Superintendents were least certain on all three items and business leaders, legislators, and faculty were least certain about community industrial development assistance.

An analysis of variance procedure was used as a method of comparing the weighted means for all groups. Tables 23 and 24, which follow, show the results of this statistical application.

Table 23. A comparison of weighted group means on "current" subscale for the noninstructional activities

Groups	\bar{X}	s	N	F value
Presidents	12.87	2.74	15	15.49**
Faculty	10.52	1.54	241	
Superintendents	9.44	2.47	84	
Department of Education	11.60	3.63	15	
State Board	9.44	9.61	9	
Legislators	9.72	4.73	32	
Trustees	11.62	1.76	68	
Business Leaders	9.91	2.89	66	

**Significant at the .01 level.

ANOVA Table 23 indicates a significant overall F value and Table 24 a highly significant overall F value at or beyond the .01 level. Scheffé tests were conducted between the possible combinations of groups. The tests yielded an overall F value of 15.49. Presidents' and trustees' means were different than superintendents' means when Scheffé tests were used.

Table 24. A comparison of weighted group means on "future" subscale for the noninstructional activities

Groups	\bar{X}	s	N	F value
Presidents	99.40	21.06	15	34.87**
Faculty	80.98	9.53	241	
Superintendents	65.88	14.55	84	
Department of Education	84.73	19.01	15	
State Board	67.00	59.64	9	
Legislators	65.58	30.35	32	
Trustees	85.54	17.25	68	
Business Leaders	70.20	17.81	65	

**Significant at the .01 level.

The same statistical procedure resulted in an overall F value of 34.87, a highly significant difference. Presidents' means were different than business leaders', state board members', superintendents', and legislators' means; trustees' means were different than legislators, business leaders, and superintendents; and faculty means were different than means of business leaders, superintendents, and legislators when Scheffe tests were used.

As previously reported, the only significant difference occurred when superintendents' means were compared with trustees' and presidents' means relating to "current" functions. Therefore, it is not possible to reject null hypothesis number three, part a. Since highly significant differences were found between the means of

educators, policymakers, and business leaders, it is possible to reject part b. There were many significant differences among these groups and their perceptions of noninstructional functions that should exist in the area of community colleges.

The second section of the survey instrument which relates to the governance of the area community college is addressed by the following null hypothesis.

Hypothesis Four: There is no significant difference between educators, policymakers, and business leaders and their perceptions of state governance roles of the State Board of Education as they relate to area community colleges.

Table 25 presents a summary of the areas of responsibility for which the chi-square value indicated a significant difference among educators, policymakers, and business leaders. Thirty-six of the forty-nine statements of area of responsibility obtained a chi-square value of 12.80 or greater at a level of significance of .05 and degrees of freedom = 6. The range of chi-square values which were significant at .05 were from a low of 12.80, establish campus enrollment levels to a high of 71.02, use of telecommunications for instructional purposes. One area of responsibility (item 19) had more than 20 percent of the cells with less than 5 for an expected value and therefore was dropped from the analysis.

Table 25. A summary of significant weighted chi-squares for each area of responsibility examining the relationship between type of respondents (3 categories) and level of state governance (4 categories)

Areas of Responsibility	Chi-square	Level of Significance*
1. Education program approval	14.14	.03
2. Institutional budgets	28.88	.00
3. Long-range planning	36.29	.00
4. Student tuition and fees	14.14	.03
5. Salary schedules for faculty	34.68	.00
6. Salary for administrators	41.36	.00
10. Degrees to be offered	25.99	.00
11. Off-campus courses	35.72	.00
13. Graduation requirements	27.50	.00
14. Grading policies	63.01	.00
15. Student admission policies	14.39	.03
16. Student retention policies	15.79	.02
17. Probation policies (academic or discipline)	19.48	.00
20. Rules and regulations governing student activities	32.71	.00
21. Expenditure of student activity fees	16.53	.01
22. Establishment of new college campuses	25.92	.00
23. Lease and/or construction of new buildings	24.49	.00
24. Determine master plan for campus development	29.49	.00
25. Road construction on campus	19.97	.00
26. Building renovations	20.85	.00
27. Establish student-faculty ratios	26.06	.00
28. Establish uniform number of contact hours for specific vocational programs such as secretarial or nursing programs	15.11	.02
29. Establish affirmative action goals	22.52	.00
30. Adjudicate faculty grievances	34.55	.00
31. Establish campus enrollment levels	12.80	.05
32. Transferring large sums of money between budget categories such as salaries, travel, or materials and supplies	54.79	.00
33. Use of year-end budget surplus	54.80	.00

*Significant at .05 level and degrees of freedom = 6.

Table 25. (continued)

Areas of Responsibility	Chi-square	Level of Significance*
38. Approval of customized training programs for business and industry	23.44	.00
39. Use of telecommunications for instructional purposes	71.02	.00
41. Establish articulation policies between high schools and community colleges	42.20	.00
42. Establish articulation policies between community colleges and four-year institutions	17.58	.01
43. Delivery of vocational education to high school students	24.08	.01
44. In-plant training for employees	20.29	.00
45. Apprenticeship-related instruction	17.65	.01
49. Confirm appointment of college presidents	44.08	.00

Further analysis of the areas of responsibility which are significantly different are shown in Table 26. The type of authority for which there was the least consensus was reported by the three subgroups; educators, policymakers, and business leaders.

Of the 36 statements that were significantly different, Table 26 shows the type of authority for which there was a lack of consensus by subgroup. No state involvement appears 18 times, or 50 percent of the responses within the subgroup population. Educators tend to have the highest percentage of subgroups who responded strongly, no state involvement. In four instances, policymakers responded no state

Table 26. The frequency of response in areas of responsibility and identification of type of authority where subgroups lacked consensus

Area of Responsibility	Lack of Consensus Subgroups Percent		
	Educator	Policy-maker	Business Leader
1. Education program approval	L = 13.7	L = 17.4	L = 27.4
2. Institutional budgets	C = 27.6	C = 21.5	C = 42.9
3. Long-range planning	C = 33.9	C = 27.3	C = 42.9
4. Student tuition and fees	NS = 28.4	NS = 37.5	NS = 14.3
5. Salary schedules for faculty	NS = 53.2	NS = 46.2	NS = 23.8
6. Salary for administrators	NS = 55.0	NS = 48.3	NS = 15.9
10. Degrees to be offered	R = 45.9	R = 32.8	R = 22.2
11. Off-campus courses	L = 32.5	L = 20.4	L = 42.9
13. Graduation requirements	R = 27.5	R = 42.1	R = 58.7
14. Grading policies	NS = 67.1	NS = 39.3	NS = 26.6
15. Student admission policies	C = 18.4	C = 26.0	C = 32.8
16. Student retention policies	NS = 49.6	NS = 39.8	NS = 29.7
17. Probation policies (Academic or discipline)	NS = 59.8	NS = 53.7	NS = 35.9
19. Establishing and approving student clubs and organizations	NS = 65.8	NS = 83.0	NS = 70.3

^aR = regulate, L = leadership, C = coordinate, and NS = no state involvement.

Table 26. (continued)

Area of Responsibility	Lack of Consensus Subgroups Percent		
	Educator	Policy-maker	Business Leader
20. Rules and regulations governing student activities	NS = 60.5	NS = 81.4	NS = 60.9
21. Expenditure of student activity fees	NS = 67.2	NS = 76.8	NS = 56.2
22. Establishment of new college campuses	R = 64.4	R = 74.8	R = 51.6
23. Lease and/or construction of new buildings	R = 31.0	R = 45.9	R = 21.9
24. Determine master plan for campus development	NS = 34.0	NS = 24.4	NS = 10.9
25. Road construction on campus	R = 6.9	R = 18.0	R = 10.9
26. Building renovations	NS = 53.6	NS = 45.6	NS = 39.1
27. Establish student-faculty ratios	C = 20.5	C = 26.5	C = 40.6
28. Establish uniform number of contact hours for specific vocational programs such as secretarial or nursing programs	NS = 9.5	NS = 1.5	NS = 9.4
29. Establish affirmative action goals	R = 17.2	R = 32.9	R = 23.8
30. Adjudicate faculty grievances	NS = 59.6	NS = 57.5	NS = 30.2
31. Establish campus enrollment levels	C = 16.1	C = 20.8	C = 31.7

Table 26. (continued)

Area of Responsibility	Lack of Consensus Subgroups Percent		
	Educator	Policy-maker	Business Leader
32. Transferring large sums of money between budget categories such as salaries, travel, or materials and supplies	NS = 46.4	NS = 29.3	NS = 23.8
33. Use of year-end budget surplus	NS = 54.0	NS = 31.1	NS = 34.9
38. Approval of customized training programs for business and industry	L = 28.2	L = 34.5	L = 54.0
39. Use of telecommunications for instructional purposes	NS = 11.1	NS = 4.5	NS = 36.5
41. Establish articulation policies between high schools and community colleges	C = 46.7	C = 27.2	C = 28.6
42. Establish articulation policies between community colleges and four-year institutions	R = 18.4	R = 30.5	R = 20.6
43. Delivery of vocational education to high school students	NS = 9.3	NS = 16.8	NS = 28.6
44. In-plant training for employees	L = 42.4	L = 29.7	L = 38.1

Table 26. (continued)

Area of Responsibility	Lack of Consensus Subgroups			Percent
	Educator	Policy-maker	Business Leader	
45. Apprenticeship-related instruction	L = 38.8	L = 42.8	L = 33.3	L = 39.7
49. Confirm appointment of college presidents	NS = 49.3	NS = 53.5	NS = 53.8	NS = 17.5

involvement at a much higher percentage than educators: item 19, establishing and approving student clubs and organizations; item 20, rules and regulations governing student activities; item 21, expenditure of student activity fees; and item 43, delivery of vocational education to high school students.

Business leaders responded no state involvement much more strongly than educators and policymakers to two areas of responsibility: item 39, use of telecommunications for instructional purposes, and item 43, delivery of vocational education to high school students.

The remaining eighteen statements of area of responsibility for which there was a lack of consensus were nearly evenly divided among the other three types of authority. Seven areas of responsibility related to regulation, six areas of responsibility to coordination, and five to leadership.

When a lack of consensus occurred regarding areas of responsibility that should be regulated, policymakers tend to have the highest percentage of response, five out of the seven statements. Business leaders have the highest percent of response regarding the coordination of areas of responsibility on five of the six statements where the least consensus emerged about coordinating specific areas of responsibility. Educators and business leaders had the highest percentage of response to leadership as compared to policymakers.

Table 27 depicts those areas of responsibility for which there was no significant difference at the .05 level. The strongest responses

Table 27. The frequency of response for areas of responsibility with no significant differences among subgroups as to type of authority

Areas of Responsibility	Total Percent			
	Regu- late	Coor- dinate	Leader- ship	No State Involvement
7. Educational program evaluation	28.3	36.9	30.3	4.5
8. Initiate new programs	12.94	30.5	44.7	11.9
9. Discontinue existing programs	15.6	24.9	41.5	18.0
12. Curriculum changes	10.1	27.2	35.3	27.4
18. Intercollegiate athletic programs	19.9	26.6	21.0	32.5
34. Establish goals for the statewide system of two-year institutions	25.3	41.6	29.0	4.0

Table 27. (continued)

Areas of Responsibility	Total Percent			
	Regu- late	Coor- dinate	Leader- ship	No State Involvement
35. Establish performance measures or standards of accountability for the statewide system of two-year institutions	38.0	34.2	24.8	3.0
36. Establish certification requirements for licensure as teachers	72.6	9.9	12.6	5.0
37. Establish certification requirements for licensure as administrators	70.1	10.9	10.4	8.6
40. Use of telecommunications for administrative purposes	8.6	36.6	34.2	20.6
46. Establish minimum faculty load	22.0	22.4	25.2	30.4
47. Professional development or inservice training	5.8	27.7	44.1	22.4
48. Maintain approval standards for general administration of the colleges	42.0	25.4	22.2	10.3

were tallied for the regulation of certification requirements for licensure of teachers and administrators and the maintenance of approval standards for the general administration of the colleges. The four highest frequency of responses for coordination were establishing goals for the statewide system of two-year institutions, educational program evaluation, use of telecommunications for administrative purposes, and the establishment of performance measures or standards of accountability for the statewide systems of two-year institutions. Three areas of responsibility ranked highest in the area of leadership were the initiation of new programs, professional development or inservice training, and the discontinuance of existing programs.

The last type of authority for which there was no significant difference of perception among respondents was no state involvement and the two statements that ranked the highest were intercollegiate athletic programs and the establishment of minimum faculty load.

Only one statement had responses absent in four of the twelve cells. Statement 19, establishing and approving student clubs and organizations, had 33.3 percent of the cells with expected frequencies less than five. Three of these cells were in the regulation type of authority and one in the coordination type of authority. The respondents overwhelmingly responded that there should be no state involvement in this area of responsibility.

Due to the large number of statements of area of responsibility for which there were significant differences, 36 out of 49 or 73.5 percent, null hypothesis four must be rejected. These data indicate there are significant differences among educators, policymakers, and business leaders and their perceptions of the type of authority that the State Board of Education and the Department of Education should exert with regard to area community colleges.

The research question was studied based on the descriptive data that were available. The following paragraph reports the research question and the researcher will attempt to determine whether similar perceptions exist regardless of the three descriptive data elements.

Research Question: Will educators, policymakers and business leaders hold similar perceptions of mission regardless of gender, formal education and experience?

Appendix E, Tables 31 through 36, provide descriptive data based on the variables of gender, education, and experience in the three function subscales; instructional credit, instructional noncredit, and noninstructional. Each subscale is also further described as to "current" and "future" functions. Because the data contained in this section are additive in nature, the weighted means and weighted standard deviations in the labels were obtained on a cumulative basis.

Table 31 in Appendix E provides data in the "current" instructional credit subscale. The highest mean for the male classification was obtained by the males in the presidents' category. This group also had

the highest mean in the education and experience categories. Females in the trustee category had the highest mean while Department of Education staff showed the lowest standard deviation in four categories; male, female, education beyond the baccalaureate and experience 1-9 years. State Board members with bachelor degrees and presidents with 10 or more years of experience also had the lowest standard deviations in these categories.

Table 32 addresses itself to the same function statements as Table 31, although it relates to the same descriptive data in the "future" classification.

In the classification by gender, the presidents' group has the highest mean for males and Department of Education staff for females. The presidents' group continues to have the highest mean for education beyond a bachelor's degree and both levels of experience. The Department of Education staff has the smallest standard deviations for both males and females for two education levels and for experience of less than 10 years.

As in the previous table, when comparisons by education are made, the means of the groups generally appear to go up with the educational level.

Legislators have the lowest means in the majority of the "current" instructional classifications; male, education levels, and both levels of experience. This would suggest that legislators, regardless of gender, education level, or experience tend to register less agreement

that area colleges are currently carrying out many of the instructional credit functions contained in the survey. Superintendents and business leaders registered the lowest means for these statements in the "future" classification.

Table 33 and Table 34 provide descriptive data concerning the instructional noncredit functions for the "current" and the "future." Once again the presidents' group had the highest means in the majority of the classifications; male, education beyond the bachelor's degree, and both experience levels. The presidents also had the lowest standard deviation in the male, education, and experience over nine years level.

The lowest means were registered by superintendents in three "current" and four "future" instructional noncredit functions.

Higher means are a trend by group as education level and experience increase in these classifications, as was true for the instructional credit classifications.

Noninstructional function statements for "current" and "future" classifications are depicted in Table 35 and Table 36. The highest means were obtained by presidents for both "current" and "future" classifications and the lowest standard deviations were generally registered by this group. The lowest means were obtained by superintendents for "current" and by legislators for "future" non-instructional functions.

When responses are compared by experience there does not appear to be a significant trend, although presidents did compile the highest means in both experience levels.

This analysis of the descriptive data resulted in the observation that educator's, policymaker's and business leader's perceptions of "current" and "future" variables related to instructional credit, instructional noncredit, and noninstructional functions are similar regardless of gender, formal education and experience.

CHAPTER V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

A statewide system of two-year public postsecondary institutions was created in 1965 in Iowa. The Iowa General Assembly enacted Chapter 280A of the Code of Iowa which resulted in 15 institutions, of which 11 were community colleges and four were vocational-technical institutes. Today, all but one of the institutions have been granted authority from the State Board of Education to operate as a community college.

The legislation which created these postsecondary institutions stated that the mission of the institutions was to carry out instructional credit and noninstructional programs, as well as non-instructional activities.

The statutory provisions in the Code of Iowa included the areas of responsibility for the State Board of Education, the director of the Department of Education, and the area community college board of directors. Generally stated, the State Board was granted regulatory and leadership responsibilities, the director was granted additional administrative responsibilities, and the local board of directors was granted governing roles.

As a result of action of the 1986 General Assembly, the State Board was mandated to conduct a study of the governance of Iowa's community colleges and to submit a report to the General Assembly by January 1990. As a result, this study was undertaken to gather perceptions

about the current and future mission of the two-year institutions and the type of authority that should be vested with the State Board of Education and the Department of Education.

A review of the literature was conducted relating to the mission and governance of community colleges. The review of literature focused on the history of governance structures and functions--the current structure of governance, and issues related to change in governance and mission.

State level regulation of higher education has a history of over two hundred years in the United States. Three types of state-level agencies have evolved over this period of time; voluntary, coordinating and governing. The emerging national trend is for more centralization with regulatory boards being granted more authority in administrative functions such as student aid and accreditation. Social and economic pressures have had the greatest influence on coordinating and governing boards during the last 15 years.

The Education Commission of the States reported that in 1987, 14 states had consolidated state governing boards for all public institutions of higher education, 8 had a governing board for all senior institutions and a separate agency for community colleges; 20 states had coordinating boards with program approval authority; 5 states had coordinating boards with program review and recommendation authority only, and 3 states had planning agencies. Some personnel who have experienced a separate state board for community colleges through

which funds are allocated to community colleges report strains between state control and local autonomy, as well as frequent directives from other state level agencies and organizations. State-level coordination has produced numerous alleged advantages such as more equitable funding, more sophisticated management information systems and student information systems, enhanced articulation between community colleges and universities, and the ability of the coordinating board to communicate with a single voice to the legislature.

Prior to embarking on a major change in governance, state policy-makers must consider the critical issues and state-specific problems and the goals for the higher education system. Function should be determined prior to deciding on a structure for the system; since governance is a means rather than an end in itself. Defining institutional function is a central task to determining the mission. A contemporary statement about the mission of community colleges included phrases such as; promoting social cohesion or economic development, useful knowledge and skills in the workplace contribute to the well-being of the community and teach people to be enlightened citizens.

The study of mission and governance obtained responses from individuals who were educators, policymakers, and business leaders. Persons included in the sample population were asked to give their perceptions of function or mission and state-level governance of the area community colleges. The mission statements were divided between "current" functions and "future" functions.

A total of 34 statements were included in the section of the study on mission and 49 statements were included in the section on governance. Within the section on mission, 14 statements related to instructional credit programs, 13 to instructional noncredit programs, and 7 to noninstructional activities.

Descriptive data, which included gender, formal education, and years of experience in present position were studied to determine if any relationship existed between these variables and the perceptions of the respondents.

A total of 1,135 surveys were mailed and 531 usable surveys were returned. Responses from the various constituencies were as follows: 1) presidents (15), 2) faculty (242), 3) superintendents (84), 4) Department of Education staff (15), 5) State Board (9), 6) legislators (32), 7) trustees (68), and 7) business leaders (66).

Male respondents outnumber female respondents in the survey approximately four to one. In the category of policymakers, only 13 percent of the respondents were female and 87 percent were male.

A second area of descriptive data collected was formal education. Over 50 percent of all respondents indicated that they had completed some education beyond the baccalaureate level. All of the area college presidents reported formal education beyond the bachelor's degree. In the category of high school or less, business leaders and State Board members reported the highest percentages in this category.

The third area of descriptive data was number of years the respondents had held their current position of employment. The mean years of experience of all respondents is 10.32. The highest average years of experience in their present position was compiled by the business leaders with 11.50 years, and the lowest average years of experience was reported by State Board members with 5.13 years of experience.

Legislators were asked to respond if they had served in the General Assembly in 1965. One respondent indicated service that year, the year the area community colleges were created.

Business leaders were asked to identify the occupational category of their employment. Over 22 percent, the highest percentage, were involved in the service sector and six percent, the lowest percentage, were involved in finance/insurance.

Policymakers and business leaders were asked if they had served as a member of an area college program or curriculum advisory committee. Nearly 60 percent of all business leaders and policymakers responded they had served in this capacity and over 91 percent of the business leaders as a single group had served in this capacity.

Four null hypotheses and a research question were included in this research project. Null hypothesis number one states, there is no significant difference between educators, policymakers, and business leaders and their perceptions of current functions relating to the instructional credit programs of the area community colleges.

Presidents had the highest mean of 14 variables describing instructional credit programs currently being conducted and those that should be conducted in the future. The functional statements for which there was less agreement currently and in the future were programs for individuals in correctional institutions and the coordination of advanced placement courses or programs for gifted and talented students. However, not all groups registered less certainty about these two functions.

An analysis of variance procedure was used to compare the means of all groups for differences. Highly significant F values beyond the .01 level were registered for means on the "current" and "future" subscales. Scheffé tests showed the difference to occur when legislators and business leaders were compared to college presidents in "current" functions and between college presidents, legislators, and business leaders in "future" functions. Because significant F values were not obtained on a majority of the tests, neither part a or b were rejected.

Null hypothesis two states that there is no significant difference between educators, policymakers, and business and their perceptions of "current" and "future" functions relating to the instructional noncredit aspects of the educational program of the area colleges.

Scheffé tests were conducted which resulted in no significant differences when the subgroups were compared on "current" instructional noncredit functions. However, significant differences were found between three of the educator subgroups, legislators, and

business leaders and their perception of "future" instructional non-credit programs. Therefore, from the results obtained, it was impossible to reject both parts of null hypothesis two.

Null hypothesis three states there is no significant difference between educators, policymakers, and business leaders and their perceptions of "current" and "future" functions relating to the noninstructional activities of the area community colleges.

One noninstructional function, student personnel services, registered a very high mean with all subgroups on both the "current" and "future" subscales. The lowest mean for the total group among all statements of function was registered on the noninstructional subscale, provide a common location for human services agencies. Legislators gave this function the lowest rating among all subgroups on both "current" and "future" subscales.

Significant differences were found on the "current" subscale only when superintendents were compared with trustees and presidents and therefore it was not possible to reject the first part of hypothesis three. Highly significant differences were found among most groups and their perceptions of "future" noninstructional functions and therefore it was impossible to reject the second part of the third null hypothesis.

Null hypothesis number four states there is no significant difference between educators, policymakers, and business leaders and their perceptions of state governance roles of the State Board of Education as they relate to area community colleges.

There were 49 areas of responsibility included in the survey for which respondents were asked to respond to four types of authority to be vested in the State Board of Education and the Department of Education. The four types of authority were regulate, coordinate, leadership, and no state involvement.

Chi-square procedures were used to determine the areas of responsibility which were significantly different among the respondents. Of the 49 statements, 36 statements or 73 percent were significantly different at the .05 level. The investigator rejected null hypothesis number four, because highly significant chi-square values were obtained on a large majority of the tests.

The research question asks if the subgroups will hold similar perceptions of "current" and "future" functions of area community colleges regardless of gender, education, and years of experience in present position.

Differences in opinion existed between male and female respondents. Of the eight groups studied, respondents are more evenly split between males and females in the faculty and State Board member subgroups.

The greatest difference of opinion appears to exist between respondents of the four educational levels, and a lesser divergence of opinion exists among respondents when responses are compared by years of experience within groups.

Based on the data reviewed related to the research question, it was observed that similar perceptions are held by groups of respondents when comparing gender, formal education, and years of experience and respondents' perceptions of "current" and "future" variables related to the mission of community colleges.

A review of the conclusions based on the findings would emphasize the strong agreement that exists concerning the "current" and "future" functions of area community colleges as perceived by the respondents. Educators, policymakers, and business leaders strongly agree that area community colleges should provide vocational and technical training to high school graduates, conduct programs to train and retrain workers, provide transferable degree programs, and provide student personnel services. Respondents also placed considerable emphasis on the need to provide economic development activities and to coordinate vocational and technical education for high school students. Less emphasis should be placed on avocational/recreational activities and community services in the view of the respondents.

The data collected demonstrated significant differences of perception of the type of authority the State Board of Education and the Department of Education should assume related to numerous areas of responsibility.

There was general agreement related to traditional areas of regulation such as certification of personnel, creation of new campuses, and evaluation of programs. Areas of coordination which received consensus

among respondents included setting state goals for the system of colleges, formulation of articulation policies, and the use of telecommunications for instructional purposes. Leadership roles for the state level were the initiation of new programs and the discontinuance of existing programs, and the coordination of professional development activities.

Recommendations to policymakers included the strengthening of the statutory statement concerning community colleges functions. Encouragement should be given to providing regional services to high school students and to providing instruction via telecommunications. The state level authority of the State Board of Education and the Department of Education should be expanded to require the establishment of statewide goals, performance measures and standards, uniform contact hours for programs, and graduation requirements for students.

Future research might include a similar study and involve students as participants. Research could be conducted in a state with different demographics than Iowa using the same survey instrument. Another approach might be to study perceptions of local governance of community colleges.

In conclusion, the scope of Iowa's community college programs and services has grown in terms of perception and reality over twenty-five years. As a result of this study, the respondents indicate that the mission of the community colleges has and should respond to social and economic issues, and educational needs of adults and students in high

school. It is possible for these institutions to remove economic and geographic barriers to educational opportunity for students of all ages.

Governance of the colleges must be a shared responsibility of state and local boards with clearly defined areas of responsibility and authority. The structure of governance for the colleges must be determined by the functions to be conducted by the community colleges. It is clear that community colleges can meet the expectations for programs and services with appropriate structures and resources.

Conclusions Based on Findings

The information in this section relates to conclusions derived as a result of the findings of this study. These conclusions are applicable to the area community colleges of Iowa.

1. The perceptions expressed in this study by the eight respondent groups indicate that a very positive attitude exists among educators, policymakers, and business leaders about the mission of the area community colleges.
2. The analysis of the responses to the function statements indicated that respondents feel very strongly that the statements of function in the Code of Iowa are currently being conducted and should be conducted in the future.

3. Respondents indicated that they feel very strongly about the need for area community colleges to provide vocational and technical training to high school graduates, to conduct programs to train and retrain workers, to provide transferable degree programs to senior institutions, and to provide student personnel services such as counseling, job placement, and career information.
4. There appears to be strong agreement that area community colleges should increase their emphasis on economic development activities and the coordination of vocational technical education to high school students and decrease their emphasis on avocational/recreational courses and community services as compared to the current emphasis placed in these activities.
5. Leadership development, regional delivery of educational services to high school students and economic development activities are strongly supported as functions that should be conducted in the future.
6. Instructional noncredit programs and noninstructional activities to be offered in the future were the two major categories of the mission of area community colleges for which there were significant differences.

7. The analysis of descriptive data demonstrated similar perceptions held by educators, policymakers, and business leaders.
8. The data collected concerning the state governance of the area community colleges yielded significant differences between educators, policymakers, and business leaders with a clear lack of consensus about the authority of the state to regulate specific responsibilities.
9. The respondents were very adamant that the regulatory authority of the State Board of Education and the Department of Education should include the certification of teachers and administrators, the establishment of new college campuses, and approval of educational programs.
10. Respondents generally agree that the areas of responsibility that the state education agency and board should coordinate include the establishment of goals for this state-wide system of area community colleges and articulation policies between community colleges and four-year institutions and the use of telecommunications for instructional purposes.
11. The strongest support for areas of responsibility related to leadership related to long-range planning, the initiation of new programs, the offering of professional development and inservice activities, and the discontinuance of existing educational programs.

12. There seems to be very little support for state governance of student-related issues such as the establishment and approval of student clubs, the expenditure of student activity fees, and the creation of rules to govern student activities.

Recommendations to Policymakers

The recommendations in this section should guide local and state policymakers as they formulate policy to maintain and strengthen Iowa's area community colleges.

1. The section of the Code of Iowa (280A.1) which describes the functions of the area community colleges should be maintained and strengthened by specifying economic development activities, leadership development activities, and regional delivery of educational programs to high school students.
2. Less emphasis should be given to avocational/recreational courses and community services to allow the area community colleges to direct more emphasis toward activities such as economic and leadership development.

3. Area community colleges should expand public information activities to better inform community school district administrators and business leaders of current programs and services and plans for new programs, with emphasis on economic development activities.
4. The scope of programs and services should be recognized by school district superintendents and policymakers as being much greater than at the time the area community colleges were created.
5. Area community college policies and resources should enable college personnel to address the needs of new and existing business and industry.
6. Future resources for area community colleges should be directed toward the regional delivery of educational services to high school students and the use of telecommunications for instructional purposes.
7. State and local policies should be continued which enable the smooth transition of high school students to community colleges and community college students to four-year institutions.

8. Resources should be allocated to enable area community colleges to expand instructional noncredit programs to train and retrain adult workers, to conduct high school equivalency diploma programs and adult basic education programs, as well as to offer adult education courses in conjunction with community school districts.
9. State level governance of area community colleges should require that the State Board of Education and the Department of Education establish statewide goals, performance measures, and standards for the colleges; establish graduation requirements for students, and establish uniform number of contact hours for occupational programs.
10. A state level coordinating body should encourage articulation agreements between elementary and secondary education and higher education and among the public higher institutions.
11. The duties of the State Board of Education as enumerated in the Code of Iowa should be amended to include the following leadership responsibilities to be conducted in conjunction with area community colleges: the initiation of new programs and the discontinuance of existing programs, the coordination of professional development and in-

service activities, and the coordination of long-range planning for the statewide system of area community colleges.

12. Local policy, not state policy, should address grading policies, student admission and retention policies, and probation policies.
13. State level policymakers should give increased attention to apprenticeship-related instruction as a leadership function.
14. State level policies should not address responsibilities such as the creation of salary schedules for faculty, the determination of salaries for administrators, or the confirmation of appointment of community college presidents.

Recommendations for Further Study Based on This Research

1. If a similar study is conducted in the future, students could be included as one of the audiences surveyed.
2. A study should be designed to secure perceptions of educators, policymakers, and business leaders of various types of state level boards for community colleges; a regulatory board versus a governing board versus a coordinating/leadership board.

3. A study with a similar format to this research project should be conducted in one or more states with different demographics than Iowa. The results could be compared with the results of this research project.
4. A study should be made to determine perceptions of educators, policymakers, and business leaders about local governance and administrative issues related to area community colleges.

There may be other recommendations for policymakers and future research projects; however, those suggested are intended to address the most significant areas.

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The director of the Iowa Department of Education, Dr. William Lepley granted permission for me to conduct an independent research project which was used to develop a major report prepared by the Iowa State Board of Education for the General Assembly. Dr. Lepley, staff members of the Department of Education and members of the State Board of Education provided encouragement throughout the project.

Financial support for this research was provided by the Department of Education. Dr. Leland Tack of the Department provided very helpful advice and assistance in data retrieval and analysis. I am very grateful for the important contributions the Department of Education has made to this research project.

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Thanks are also in order to the respondents who provided the data for this research project.

APPENDIX A. STATE BOARD AUTHORITY TABLE

Authority of State Boards of Higher Education
Education Commission of the States
11/87

Consolidated Governing Board		Coordinating Boards			With Program Recommendation	
Board for All Public Institutions	Board for All Senior Institutions Separate Agency for Community Colleges	<u>With Program Approval Authority</u>				
		Consoli- dated or Aggregated Budget(d)	Budget Review and Recommen- dation(f)	No Statutory Budget Role	Consoli- dated or Aggregated Budget(d)	Budget Review and Re mendat.
Alaska	Ariz.	Ala.	Colo.	N.Y.(a)	Ark.	Alaska
Ga.	Florida(a)	Conn.	Ind.		Fla.(a)(b)	Calif.
Hawaii	Iowa	Ill.	Ky.			Minn.
Idaho(a)	Kan.	Md.	La.			N.M.(g)
Maine(c)	Miss.	N.J.	Mo.			Ore.(b)
Mass.	N.H.(b)	Ohio	Pa.(a).			
Mont.(a)	N.C.	Okla.	Tenn.			
Nev.	Ore.	S.C.	Texas			
N.D.	Wyo.		Va.			
R.I.	Wis.(e)		Wash.			
S.D.						
Utah						
W. Va.						

Notes:

- (a) States with agency responsible for all levels of education.
- (b) Separate statutory coordinating agency.
- (c) Maine Maritime Academy and Vocational-Technical Institutes are under other board
- (d) Separate institutional budgets may be included in consolidated or aggregated bu
- (e) State Board of Vocational, Technical and Adult Education is separate from Board
- (f) Several boards develop the formula on the basis of which allocations are made t
- (g) Statutory authority related to programs provides only for approval of new gradu

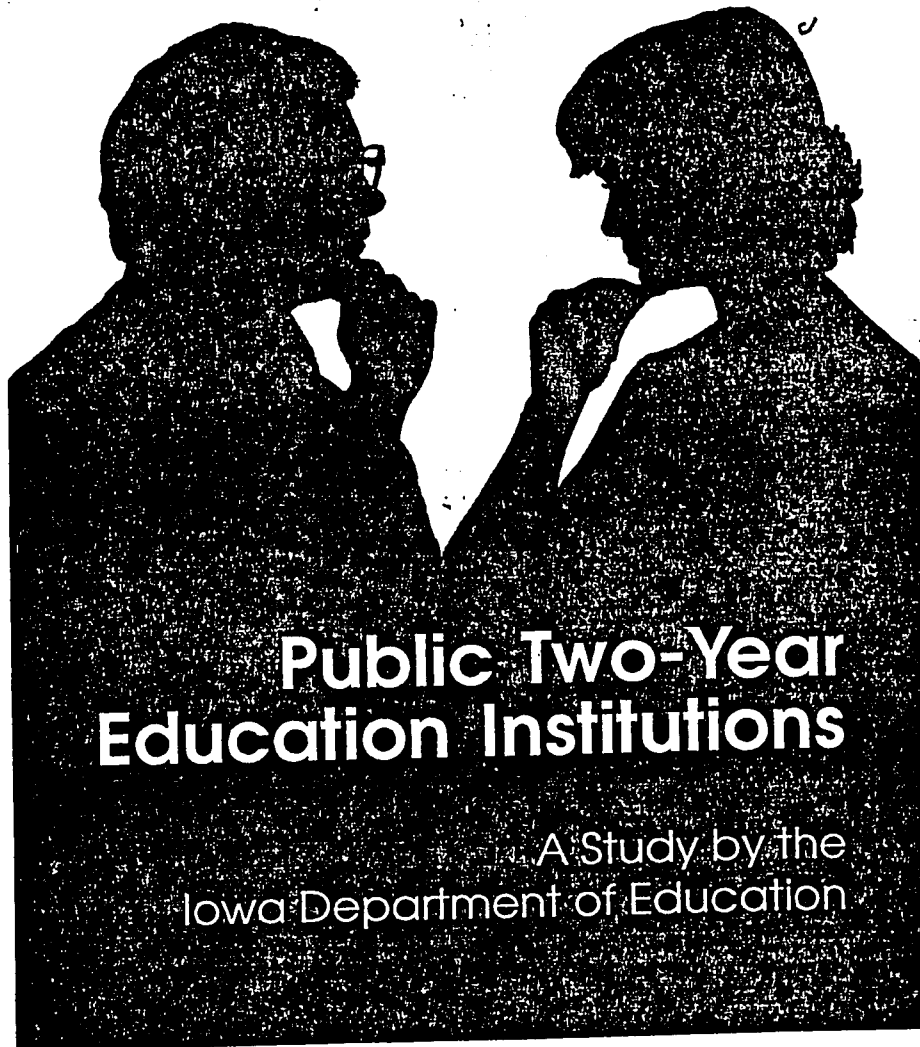
Authority of State Boards of Higher Education
Education Commission of the States
11/87

Coordinating Boards						Planning Agencies
With Program Approval Authority			With Program Review and Recommendation Authority Only			
Consolidated or Aggregated Budget(d)	Budget Review and Recommendation(f)	No Statutory Budget Role	Consolidated or Aggregated Budget(d)	Budget Review and Recommendation	No Statutory Budget Role or Program Approval	
Ala.	Colo.	N.Y.(a)	Ark.	Alaska (b)	N.H. (b)	Del.
Ariz.	Ind.		Fla.(a)(b)	Calif.		Mich.
Cal.	Ky.			Minn.		Neb.
Conn.	La.			N.M.(g)		Vt.
Del.	Mo.			Ore.(b)		D.C.
Ill.	Pa.(a).					
Iowa	Tenn.					
Kent.	Texas					
La.	Va.					
Md.	Wash.					

able for all levels of education.
ating agency.
Vocational-Technical Institutes are under other boards.
gets may be included in consolidated or aggregated budgets.
Technical and Adult Education is separate from Board of Regents.
formula on the basis of which allocations are made to institutions.
d to programs provides only for approval of new graduate programs.

APPENDIX B. SURVEY INSTRUMENT

We are interested in what
you think



Public Two-Year Education Institutions

A Study by the
Iowa Department of Education

Since we haven't heard from you, a second copy of the survey is being sent to you with our encouragement for you to share your perceptions with us. If you have recently returned this survey, thank you and please disregard this request.

Summer 1989

A Message to Respondents

The public, two-year education institutions in Iowa have experienced growth in student enrollments and educational programs over the past two decades. As a result, a number of issues and concerns have emerged about the mission and governance of the two-year institutions. It is important that the State Board of Education and the Department of Education be responsive to these concerns. Therefore, the Department of Education has developed a comprehensive strategy to address the concerns through the initiation of a task force to study the mission and relationship of the two-year institutions to the Department and State Board. One of the important aspects of the comprehensive strategy is a research study to secure the perceptions of educational leaders, policy makers and business leaders relative to the mission and governance of these higher education institutions.

You are one of the individuals who has been identified as having knowledge of and experience with Iowa's two-year institutions. The survey instrument is designed for you to share your perceptions about the current and future mission of the two-year institutions and level of authority that should be vested with the State Board of Education and the Department of Education. The information we receive from you will be summarized and presented to the members of the task force who are charged to make recommendations to the director of the Department of Education. The information will also be used by the State Board of Education to prepare a report requested by the Iowa General Assembly concerning the governance of these postsecondary institutions.

The research project is being conducted by Mavis Kelley, special assistant to the director. The data collected from the survey will be utilized in her dissertation for her graduate education studies at Iowa State University.

No individual responses will be reported in any of the reports or studies. These data will be very helpful in the preparation of recommendations to state policy makers. Your response is sincerely appreciated.



William L. Lepley, Ed.D.
Director
Iowa Department of Education

**A SURVEY OF THE PERCEPTIONS OF EDUCATIONAL LEADERS, POLICY
MAKERS AND BUSINESS LEADERS RELATIVE TO THE MISSION AND
GOVERNANCE OF PUBLIC, TWO-YEAR INSTITUTIONS IN IOWA**

Demographic Information

Please check the appropriate item in section (A), (B), or (C) below which best describes your position and years in that position. Check only ONE response.

(A) Educational Leader

- | | | | |
|---------------|---|-------|---------------------------|
| (10001) _____ | President, Area Community College | _____ | Years in present position |
| (10002) _____ | Faculty Member, Area Community College | _____ | Years in present position |
| (10003) _____ | Superintendent, Community School District | _____ | Years in present position |
| (10004) _____ | Department of Education Staff Member | _____ | Years in present position |

(B) Policy Maker

- | | | | |
|---------------|--|-------|-------------------------|
| (10005) _____ | Member, State Board of Education | _____ | Years as a board member |
| (10006) _____ | State Legislator | _____ | Years as a legislator |
| | (Check here _____ if you served in 1965) | | |
| (10007) _____ | Trustee, Board of Directors Area Community College | _____ | Years as a trustee |

(C) Business Leader

- | | | | |
|---------------|----------------------------------|-------|---------------------------|
| (10008) _____ | Agri-business | _____ | Years in present position |
| (10009) _____ | Service sector | _____ | Years in present position |
| (10010) _____ | Manufacturing (non-agricultural) | _____ | Years in present position |
| (10011) _____ | Retail or wholesale industry | _____ | Years in present position |
| (10012) _____ | Finance or insurance | _____ | Years in present position |
| (10013) _____ | Other, please specify _____ | _____ | Years in present position |

Please complete the following information about yourself:

Gender

_____ Male _____ Female

Formal Education - check the highest degree completed

- | | | | |
|---------------|---|-----------------------------------|-----------------------------|
| (20001) _____ | Did not complete high school | (20006) _____ | Master's Degree |
| (20002) _____ | High school graduate or equivalency diploma | (20007) _____ | Doctoral Degree |
| (20003) _____ | Two-Year Associate Degree | (20008) _____ | Other, please specify _____ |
| (20004) _____ | Bachelor's Degree | (20009) _____ | |
| (20005) _____ | Have attended one of Iowa's area community colleges | | |
| | credit courses (yes/no) _____ | non-credit courses (yes/no) _____ | |

Business Leaders and Policy Makers:

Have you served as a member of an area community college curriculum or program advisory committee?

- (30001) _____ Yes _____ No

PERCEPTIONS OF MISSION AND GOVERNANCE OF PUBLIC, TWO-YEAR EDUCATION INSTITUTIONS IN IOWA

On the following pages you will find listed a number of functions and responsibilities that relate to the mission and governance of the public, two-year institutions in Iowa. There are two sections of questions with Section A relating to mission and Section B to governance.

In Iowa, the specific functions carried out by individual community colleges vary. The questions concerning mission in Section A relate to the statewide system of community colleges, not individual colleges. Therefore, please respond to the statement of functions in Section A from the perspective of the statewide system of colleges, not whether you agree or disagree that all of the community colleges should carry out each of the functions uniformly.

SECTION A - MISSION

LEFT-HAND SCALE INSTRUCTIONS:

To the left of each statement of function or mission is a scale to indicate whether or not you believe that particular function is currently being conducted by public, two-year institutions in Iowa. After you have read each statement, please circle "A" (agree) if you agree that the function is currently being conducted in the manner described "D" (disagree) if you believe that it is not now being conducted, or "U" (uncertain) if you are not certain as to whether or not the activity is being conducted.

RIGHT-HAND SCALE INSTRUCTIONS:

After you have responded to the left-hand scale for each item, respond to the right-hand scale. The right-hand side of each item is a scale to indicate whether or not you believe the public, two-year institutions should be involved in the particular function as described. Please circle "A" (agree) if you agree that the function should be conducted or "D" (disagree) if you believe that the function should not be conducted. Please also circle a number on this scale. Number 1 represents a slight agreement or disagreement with the following numbers indicating an increasing intensity of opinion through Number 5 which indicates a strong agreement or disagreement. For example, if you circled A and 1 you would be responding that you slightly agree, or if you circled D and 5 you would be responding that you strongly disagree.

If you are completely undecided about whether you agree or disagree with a statement, circle both "A" and "D" for that scale but do not circle any numbers in that scale.

SAMPLE

Current Functions of Area Community Colleges

A	D	U
---	---	---

1. Provide graduate level education.

Future Functions of Area Community Colleges

A	1	2	3	4	5
D	1	2	3	4	5

Current Functions of Area Community Colleges

(400)

A	D	U
---	---	---

1. Provide the first two years of college work including preprofessional education.

A	D	U
---	---	---

2. Provide vocational and technical training to high school graduates.

A	D	U
---	---	---

3. Conduct programs to train and retrain workers.

A	D	U
---	---	---

4. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED).

A	D	U
---	---	---

5. Provide programs for all students who may best serve themselves by enrolling in vocational and technical training while also enrolled in a local high school, public or private.

A	D	U
---	---	---

6. Provide students of high school age with advanced college placement courses not taught at a student's high school while the student is also enrolled in high school.

A	D	U
---	---	---

7. Provide student personnel services such as counseling, job placement, and career information.

A	D	U
---	---	---

8. Provide community services to foster cultural, social and recreational opportunities in the geographic area.

A	D	U
---	---	---

9. Provide occupational courses for employees of a specific company or corporation, even though the skills or knowledge obtained may not necessarily be transferrable to a different employment situation.

A	D	U
---	---	---

10. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.

Future Functions of Area Community Colleges

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

**Current Functions of
Area Community Colleges**

(400)

A	D	U
---	---	---

11. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.

A	D	U
---	---	---

12. Provide programs for community leadership that are designed to help local leaders solve problems and undertake major community betterment programs.

A	D	U
---	---	---

13. Provide developmental and remedial education for adults who are educationally disadvantaged.

A	D	U
---	---	---

14. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services.

A	D	U
---	---	---

15. Provide educational activities that utilize the medium of mass communications such as radio and television.

A	D	U
---	---	---

16. Provide courses to high school students via interactive telecommunications in cooperation with community school districts.

A	D	U
---	---	---

17. Coordinate the delivery of vocational and technical education to high school students.

A	D	U
---	---	---

18. Provide educational programs for individuals in correctional institutions.

A	D	U
---	---	---

19. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.

A	D	U
---	---	---

20. Provide in-plant training for employees as an incentive to retain current businesses in Iowa.

**Future Functions of
Area Community Colleges**

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

A	1	2	3	4	5
D	1	2	3	4	5

**Current Functions of
Area Community Colleges**

**Future Functions of
Area Community Colleges**

(400)

- | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | D | U | 21. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 22. Provide education for persons who have academic, socioeconomic, or other handicaps which prevent success in regular vocational education programs. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 23. Provide vocational and technical training for persons who are not enrolled in high school and have not completed high school. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 24. Conduct programs to upgrade skills of employed persons. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 25. Provide literacy skill development such as Adult Basic Education (ABE). | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 26. Provide courses which lead to an Associate in Arts Degree which are transferrable to baccalaureate degree granting institutions. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 27. Provide programs which provide entry level employment skills as well as baccalaureate degree (example: law enforcement or legal assistant). | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 28. Provide enrichment programs for at-risk youth that make it possible for such students to complete high school and move on to higher education or employment. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| A | D | U | 29. Offer adult education courses in conjunction with community school districts. | <table border="1"> <tr> <td>A</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>D</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | A | 1 | 2 | 3 | 4 | 5 | D | 1 | 2 | 3 | 4 | 5 |
| A | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |
| D | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | |

**Current Functions of
Area Community Colleges**

(400)

A	D	U
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30. Assist community industrial development groups seek new business and industry for the area.

A	1	2	3	4	5
D	1	2	3	4	5

A	D	U
---	---	---

31. Provide research assistance to community economic development groups.

A	1	2	3	4	5
D	1	2	3	4	5

A	D	U
---	---	---

32. Conduct apprenticeship-related instruction.

A	1	2	3	4	5
D	1	2	3	4	5

A	D	U
---	---	---

33. Provide student housing for students who are unable to commute to campus.

A	1	2	3	4	5
D	1	2	3	4	5

A	D	U
---	---	---

34. Coordinate the delivery of advanced placement courses or programs for gifted and talented students.

A	1	2	3	4	5
D	1	2	3	4	5

A	D	U
---	---	---

35. Other functions; please describe:

A	1	2	3	4	5
D	1	2	3	4	5

SECTION B - GOVERNANCE

In your opinion, how much authority for public, two-year education institutions should be vested in the State Board of Education and the Department of Education? Please place a check mark in the columns to the right of the area of responsibility which best describes the type of authority.

Definitions:

- Regulate -- to make and enforce policies (administrative rules) according to criteria or principles.
- Coordinate -- to bring into proper order or to adjust to create harmony.
- Leadership -- to provide guidance and direction.
- State level -- authority vested in the State Board of Education and the Department of Education.

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
1. Education program approval.				
2. Institutional budgets.				
3. Long-range planning.				
4. Student tuition and fees.				
5. Salary schedules for faculty.				

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
6. Salary for administrators.				
7. Educational program evaluation.				
8. Initiate new programs.				
9. Discontinue existing programs.				
10. Degrees to be offered.				
11. Off-campus courses.				
12. Curriculum changes.				
13. Graduation requirements.				

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
14. Grading policies.				
15. Student admission policies.				
16. Student retention policies.				
17. Probation policies (academic or discipline).				
18. Intercollegiate athletic programs.				
19. Establishing and approving student clubs and organizations				
20. Rules and regulations governing student activities.				
21. Expenditure of student activity fees.				

(500)		A	B	C	D
Area of Responsibility		Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
22.	Establishment of new college campuses.				
23.	Lease and/or construction of new buildings.				
24.	Determine master plan for campus development.				
25.	Road construction on campus.				
26.	Building renovations.				
27.	Establish student-faculty ratios.				
28.	Establish uniform number of contact hours for specific vocational programs such as secretarial or nursing programs.				
29.	Establish affirmative action goals.				

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
30. Adjudicate faculty grievances.				
31. Establish campus enrollment levels.				
32. Transferring large sums of money between budget categories such as salaries, travel or materials and supplies.				
33. Use of year-end budget surplus.				
34. Establish goals for the statewide system of two-year institutions.				
35. Establish performance measures or standards of accountability for the statewide system of two-year institutions.				
36. Establish certification requirements for licensure as teachers.				
37. Establish certification requirements for licensure as administrators.				

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
38. Approval of customized training programs for business and industry.				
39. Use of telecommunications for instructional purposes.				
40. Use of telecommunications for administrative purposes.				
41. Establish articulation policies between high schools and community colleges.				
42. Establish articulation policies between community colleges and four-year institutions.				
43. Delivery of vocational education to high school students.				
44. In-plant training for employees.				
45. Apprenticeship-related instruction.				

(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
46. Establish minimum faculty load (full-time definition).				
47. Professional development or inservice training.				
48. Maintain approval standards for general administration of the colleges.				
49. Confirm appointment of college presidents.				
50. Other, please specify _____ _____ _____				
51. _____ _____ _____				
52. _____ _____ _____				
53. _____ _____ _____				

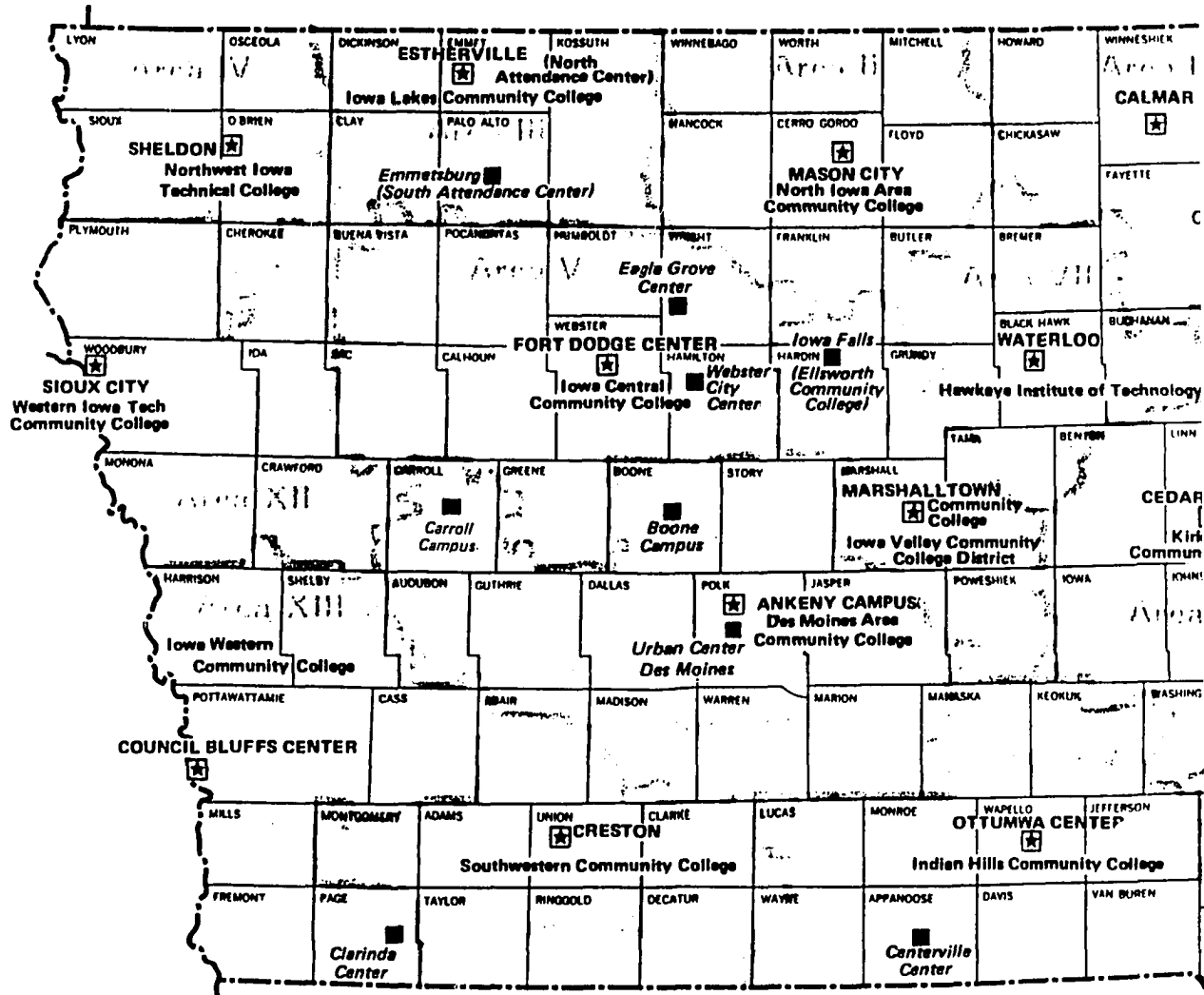
(500)	A	B	C	D
Area of Responsibility	Regulated at State Level	Coordinated at State Level but Not Regulated	Leadership from the State Level	No State Involvement
54. _____ _____ _____ _____				
55. _____ _____ _____ _____				
56. _____ _____ _____ _____				
57. _____ _____ _____ _____				
58. _____ _____ _____ _____				
59. _____ _____ _____ _____				
60. _____ _____ _____ _____				

After completing the survey, close booklet with the business reply address showing, staple or tape open edge and mail as soon as possible.

APPENDIX C. MERGED AREA MAP

IOWA AREA COLLEGES

(Iowa Area Community Colleges and Area Vocational Schools)

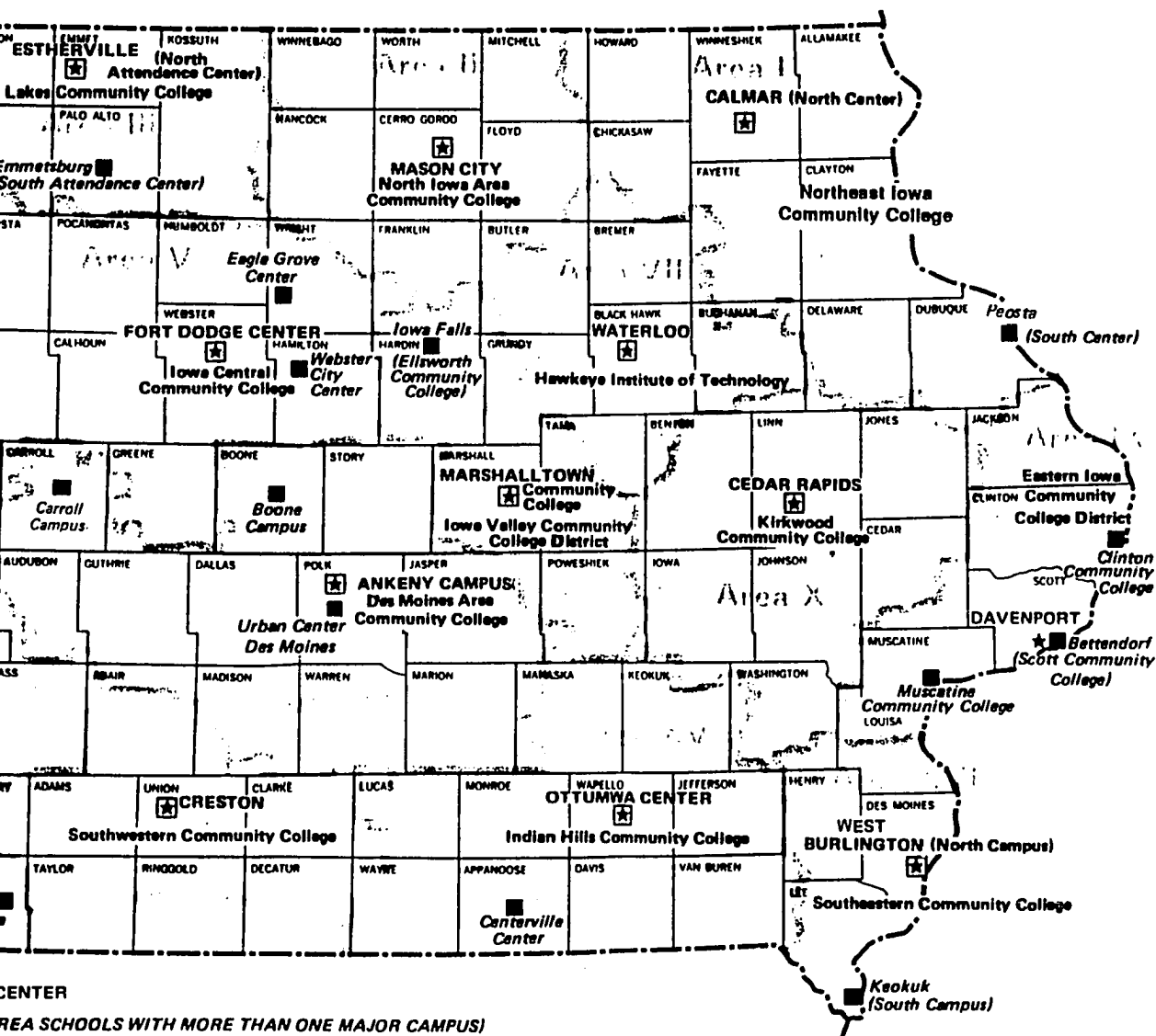


★ ADMINISTRATIVE CENTER

■ OTHER CAMPUS (AREA SCHOOLS WITH MORE THAN ONE MAJOR CAMPUS)

★ ADMINISTRATIVE CENTER AND CAMPUS

Iowa Area Community Colleges and Area Vocational Schools)



APPENDIX D. WEIGHTED MEANS AND STANDARD DEVIATIONS BY GROUP

Table 28. The weighted means and weighted standard deviations by group and total groups for those variables categorized as instructional credit functions

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
1. Provide the first two years of college work including pre-professional education	Total	1.89	.44	13.91	3.43
	Presidents	2.00	.00	15.80	1.63
	Faculty	1.92	.17	14.66	1.56
	Superintendents	1.81	.52	12.23	3.76
	Dept. of Ed.	2.00	.00	15.27	3.32
	State Board	2.00	.00	13.11	9.45
	Legislators	1.70	1.01	11.80	6.79
	Trustees	1.84	.53	14.46	2.81
	Business Leaders	1.80	.53	13.84	3.32
2. Provide vocational and technical training to high school gradates	Total	1.97	.25	15.02	2.18
	Presidents	2.00	.00	15.40	2.61
	Faculty	1.93	.17	15.29	1.15
	Superintendents	1.98	.19	14.64	2.47
	Dept. of Ed.	2.00	.00	15.40	2.61
	State Board	2.00	.00	14.11	8.31
	Legislators	1.94	.51	15.03	2.94
	Trustees	1.92	.36	15.16	2.04
	Business Leaders	1.83	.45	13.27	3.22
5. Provide programs for all students who may best serve themselves by enrolling in vocational and technical training while also enrolled in a local high school, public or private	Total	1.54	.77	12.42	3.87
	Presidents	1.73	.15	13.73	6.08
	Faculty	1.47	1.48	11.03	2.48
	Superintendents	1.39	.79	10.63	3.99
	Dept. of Ed.	1.67	1.52	13.53	5.94
	State Board	1.33	2.72	13.78	9.09
	Legislators	1.62	.95	12.90	4.65
	Trustees	1.69	.62	12.92	3.18
	Business Leaders	1.39	.68	10.66	4.33
6. Provide students of high school age with advanced college placement courses not taught at a student's high school while the student is also enrolled in high school	Total	1.49	.80	12.12	4.37
	Presidents	2.00	.00	14.73	4.73
	Faculty	1.53	.40	11.72	2.14
	Superintendents	1.35	.80	10.26	4.38
	Dept. of Ed.	1.73	1.48	14.20	4.72
	State Board	1.11	2.52	11.78	14.42
	Legislators	1.34	1.25	11.56	6.53
	Trustees	1.67	.68	12.21	3.80
	Business Leaders	1.23	.82	10.30	5.03

Table 28. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
16. Provide courses to high school students via interactive telecommunications in cooperation with community school districts	Total	1.53	.76	12.67	3.79
	Presidents	1.87	1.09	14.53	4.76
	Faculty	1.28	.45	10.67	2.15
	Superintendents	1.56	.68	12.01	3.19
	Dept. of Ed.	1.80	1.18	13.67	5.43
	State Board	1.44	2.39	14.00	8.26
	Legislators	1.34	1.19	11.06	7.31
	Trustees	1.69	.64	13.92	3.09
	Business Leaders	1.28	.78	11.31	3.74
17. Coordinate the delivery of vocational and technical education to high school students	Total	1.34	.85	12.14	4.27
	Presidents	1.60	1.74	14.53	5.83
	Faculty	1.13	.46	10.54	2.36
	Superintendents	1.54	.70	12.18	3.10
	Dept. of Ed.	1.40	1.91	11.40	11.62
	State Board	1.22	2.26	13.12	8.52
	Legislators	1.00	1.32	11.06	6.93
	Trustees	1.62	.72	14.56	3.40
	Business Leaders	1.25	.79	10.68	4.46
18. Provide educational programs for individuals in correctional institutions	Total	1.45	.74	11.07	4.33
	Presidents	2.00	.00	14.33	4.75
	Faculty	1.32	.41	10.85	2.23
	Superintendents	1.17	.74	8.79	3.83
	Dept. of Ed.	1.67	1.30	11.00	6.28
	State Board	1.44	1.97	11.00	13.78
	Legislators	1.47	1.03	12.00	5.26
	Trustees	1.43	.79	11.12	4.69
	Business Leaders	1.12	.78	9.05	4.27
22. Provide education for persons who have academic, socioeconomic, or other handicaps which prevent success in regular vocational education programs	Total	1.62	.65	11.92	3.56
	Presidents	1.87	1.09	14.00	6.84
	Faculty	1.64	.34	11.96	1.94
	Superintendents	1.58	.60	11.37	2.63
	Dept. of Ed.	1.60	1.55	13.27	5.30
	State Board	1.78	1.20	11.22	6.62
	Legislators	1.35	1.02	10.43	5.46
	Trustees	1.66	.63	11.98	4.58
	Business Leaders	1.45	.73	10.97	3.57

Table 28. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
23. Provide vocational and technical training for persons who are not enrolled in high school and have not completed high school	Total	1.60	.68	12.18	3.98
	Presidents	2.00	.00	15.00	4.64
	Faculty	1.51	.39	10.89	2.43
	Superintendents	1.51	.70	10.63	3.39
	Dept. of Ed.	1.93	.54	13.93	5.70
	State Board	1.22	1.81	10.50	8.95
	Legislators	1.57	1.05	11.97	5.24
	Trustees	1.69	.62	13.01	3.99
	Business Leaders	1.32	.81	11.25	4.69
26. Provide courses which lead to an Associate in Arts Degree which are transferrable to baccalaureate degree granting institutions	Total	1.94	.30	14.29	3.15
	Presidents	2.00	.00	15.60	2.22
	Faculty	1.91	.20	15.12	1.29
	Superintendents	1.93	.30	13.37	3.44
	Dept. of Ed.	2.00	.00	15.07	3.51
	State Board	1.89	.90	13.22	9.68
	Legislators	1.90	.57	12.68	6.47
	Trustees	1.94	.34	15.11	2.44
	Business Leaders	1.94	.30	14.17	3.17
27. Provide programs which provide entry level employment skills as well as baccalaureate degree (example: law enforcement or legal assistant)	Total	1.78	.55	13.54	3.87
	Presidents	1.80	1.18	14.43	9.03
	Faculty	1.67	.35	13.28	2.47
	Superintendents	1.70	.60	12.15	3.68
	Dept. of Ed.	1.93	.54	14.73	4.73
	State Board	1.89	.90	13.50	9.63
	Legislators	1.74	.91	12.55	6.30
	Trustees	1.82	.54	14.45	3.10
	Business Leaders	1.72	.60	13.16	3.85
28. Provide enrichment programs for at-risk youth that make it possible for such students to complete high school and move on to higher education or employment	Total	1.38	.77	11.66	4.29
	Presidents	1.47	1.75	13.33	8.33
	Faculty	1.36	.41	11.20	3.82
	Superintendents	1.48	.74	10.71	3.82
	Dept. of Ed.	1.47	1.75	11.67	8.44
	State Board	1.33	1.92	11.37	15.08
	Legislators	1.19	1.14	11.10	5.55
	Trustees	1.50	.73	12.65	3.87
	Business Leaders	1.37	.70	11.10	4.21

Table 28. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
32. Construct apprenticeship-related instruction	Total	1.69	.58	12.56	3.39
	Presidents	1.87	1.10	14.33	5.60
	Faculty	1.54	.36	12.02	1.97
	Superintendents	1.49	.68	10.78	3.01
	Dept. of Ed.	2.00	.00	13.47	4.27
	State Board	1.56	1.43	13.62	8.94
	Legislators	1.48	1.04	10.61	5.96
	Trustees	1.85	.39	13.34	3.00
	Business Leaders	1.77	.49	12.35	2.82
34. Coordinate the delivery of advanced placement courses or programs for gifted and talented students	Total	1.31	.76	10.76	4.31
	Presidents	1.73	.96	13.43	5.88
	Faculty	1.18	.43	11.13	2.27
	Superintendents	1.11	.78	9.32	4.08
	Dept. of Ed.	1.57	1.36	12.79	6.29
	State Board	1.56	1.97	10.56	8.81
	Legislators	.81	1.08	8.14	6.61
	Trustees	1.26	.81	10.80	4.45
	Business Leaders	1.25	.71	9.86	4.93

Table 29. The weighted means and weighted standard deviations by group and total groups for those variables categorized as instructional noncredit functions

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
3. Conduct programs to train and retrain workers.	Total	1.98	.16	14.79	2.28
	Presidents	2.00	.00	16.00	.00
	Faculty	1.98	.08	14.98	1.18
	Superintendents	1.96	.16	13.98	2.25
	Dept. of Ed.	2.00	.00	15.80	1.63
	State Board	2.00	.00	13.56	8.49
	Legislators	1.97	.25	14.41	3.49
	Trustees	1.95	.27	15.26	1.95
	Business Leaders	1.95	.21	14.33	2.52
4. Conduct programs for individuals desiring to take the High School Equivalency Examination (GED).	Total	1.96	.23	14.10	2.70
	Presidents	2.00	.00	15.60	2.22
	Faculty	1.95	.15	14.42	1.38
	Superintendents	1.98	.19	12.80	2.69
	Dept. of Ed.	2.00	.00	14.33	4.75
	State Board	2.00	.00	13.33	8.69
	Legislators	1.97	.25	14.03	3.72
	Trustees	1.97	.24	15.00	2.13
	Business Leaders	1.83	.45	13.27	3.22
9. Provide occupational courses for employees of a specific company or corporation, even though the skills or knowledge obtained may not necessarily be transferrable to a different employment situation.	Total	1.73	.57	11.91	3.69
	Presidents	2.00	.00	15.07	4.24
	Faculty	1.73	.31	12.31	1.84
	Superintendents	1.35	.75	9.09	3.57
	Dept. of Ed.	1.93	.54	12.00	5.51
	State Board	1.78	1.20	11.25	11.50
	Legislators	1.68	.87	11.34	4.32
	Trustees	1.85	.46	13.39	2.64
	Business Leaders	1.56	.68	10.61	4.18
10. Operate a sheltered workshop that provides educational opportunities for the physically and mentally disabled.	Total	1.19	.85	9.89	4.88
	Presidents	1.27	1.86	10.21	10.73
	Faculty	1.19	.44	9.84	2.45
	Superintendents	1.04	.79	9.49	3.79
	Dept. of Ed.	1.40	1.74	11.07	7.58
	State Board	1.33	1.92	11.62	15.49
	Legislators	.75	1.16	6.35	6.98
	Trustees	1.21	.93	10.06	5.01
	Business Leaders	1.30	.81	10.69	4.77

Table 29. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
11. Offer avocational or recreational courses such as bridge, aerobics, gourmet cooking.	Total	1.68	.69	10.17	4.21
	Presidents	2.00	.00	13.20	5.40
	Faculty	1.64	.37	10.82	2.32
	Superintendents	1.40	.79	8.73	3.89
	Dept. of Ed.	2.00	.00	10.60	5.38
	State Board	1.67	1.92	8.12	13.96
	Legislators	1.47	1.21	8.84	5.40
	Trustees	1.76	.65	11.32	3.83
	Business Leaders	1.51	.75	9.39	4.66
12. Provide programs for community leadership that are designed to help local leaders solve problems and undertake major community betterment programs.	Total	1.58	.68	12.17	3.62
	Presidents	1.87	.74	14.33	4.11
	Faculty	1.57	.38	12.65	1.79
	Superintendents	1.54	.64	11.40	2.57
	Dept. of Ed.	1.60	1.55	12.50	4.35
	State Board	1.33	1.92	10.78	14.36
	Legislators	1.55	1.10	11.26	5.66
	Trustees	1.66	.67	12.97	3.39
	Business Leaders	1.56	.68	11.43	3.77
13. Provide developmental and remedial education for adults who are educationally disadvantaged.	Total	1.78	.50	13.24	3.07
	Presidents	2.00	.00	14.80	4.44
	Faculty	1.88	.22	13.94	1.51
	Superintendents	1.67	.56	12.17	2.71
	Dept. of Ed.	1.80	.87	13.73	5.92
	State Board	1.78	1.20	12.78	9.09
	Legislators	1.70	.86	12.77	4.81
	Trustees	1.84	.47	13.89	3.09
	Business Leaders	1.59	.63	11.83	3.01
15. Provide educational activities that utilize the medium of mass communications such as radio and television.	Total	1.76	.56	12.83	3.18
	Presidents	1.87	1.09	14.93	4.01
	Faculty	1.72	.34	12.35	1.78
	Superintendents	1.73	.54	11.41	2.54
	Dept. of Ed.	1.87	1.09	13.60	5.26
	State Board	1.78	1.20	13.22	9.29
	Legislators	1.84	.64	12.16	4.27
	Trustees	1.76	.59	13.75	2.86
	Business Leaders	1.56	.64	11.08	3.62

Table 29. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
19. Provide in-plant training for employees as an incentive to attract new businesses to Iowa.	Total	1.70	.62	12.70	3.50
	Presidents	2.00	.00	15.60	2.22
	Faculty	1.61	.35	12.86	1.74
	Superintendents	1.36	.74	10.25	3.42
	Dept. of Ed.	1.80	.87	12.73	6.13
	State Board	1.89	.91	11.89	7.49
	Legislators	1.62	1.02	12.31	5.66
	Trustees	1.90	.39	14.40	2.83
	Business Leaders	1.41	.83	11.50	3.66
20. Provide in-plant training for employees as an incentive to retain current businesses in Iowa. undertake major community betterment programs.	Total	1.67	.63	12.83	3.38
	Presidents	1.87	1.09	15.60	2.22
	Faculty	1.58	.36	13.02	1.74
	Superintendents	1.42	.69	10.70	3.25
	Dept. of Ed.	1.87	.74	12.73	5.92
	State Board	1.89	.91	12.22	8.35
	Legislators	1.53	1.03	12.39	5.17
	Trustees	1.81	.52	14.22	2.96
	Business Leaders	1.42	.79	11.66	3.50
24. Conduct programs to upgrade skills of employed persons.	Total	1.86	.43	13.48	2.95
	Presidents	2.00	.00	15.67	2.72
	Faculty	1.91	.18	14.05	1.37
	Superintendents	1.80	.47	12.01	2.64
	Dept. of Ed.	1.93	.54	14.27	5.06
	State Board	1.56	1.97	11.79	10.32
	Legislators	1.81	.69	12.70	4.16
	Trustees	1.94	.34	14.36	2.36
	Business Leaders	1.92	.32	12.98	2.82
25. Provide literacy skill development such as Adult Basic Education (ABE).	Total	1.88	.37	13.68	2.91
	Presidents	2.00	.00	15.80	1.63
	Faculty	1.92	.16	14.08	1.49
	Superintendents	1.83	.41	12.24	2.71
	Dept. of Ed.	2.00	.00	14.20	4.72
	State Board	1.89	.91	12.56	9.22
	Legislators	1.87	.49	13.29	4.14
	Trustees	1.87	.48	14.56	2.61
	Business Leaders	1.69	.53	12.59	3.05

Table 29. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
29. Offer adult education courses in conjunction with community school districts.	Total	1.88	.41	13.36	3.02
	Presidents	2.00	.00	15.13	3.88
	Faculty	1.87	.22	13.69	1.63
	Superintendents	1.96	.22	13.02	2.38
	Dept. of Ed.	2.00	.00	13.40	5.44
	State Board	1.78	1.20	12.56	9.22
	Legislators	1.72	.98	12.06	4.89
	Trustees	1.91	.37	14.31	2.49
	Business Leaders	1.81	.53	12.67	3.39

Table 30. The weighted means and weighted standard deviations by group and total groups for those variables categorized as non-instructional functions

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
7. Provide student personnel services such as counseling, job placement, and career information	Total	1.91	.37	14.26	2.62
	Presidents	2.00	.00	15.60	1.29
	Faculty	1.93	.17	15.00	1.16
	Superintendents	1.82	.42	13.01	2.77
	Dept. of Ed.	2.00	.00	15.21	3.42
	State Board	1.67	1.92	13.33	8.80
	Legislators	1.93	.36	13.11	3.94
	Trustees	1.91	.37	14.71	2.61
	Business Leaders	1.98	.12	14.08	2.55
8. Provide community services to foster cultural, social and recreational opportunities in the geographic area	Total	1.64	.67	11.19	4.08
	Presidents	1.93	.54	13.93	2.37
	Faculty	1.75	.32	12.59	1.80
	Superintendents	1.42	.74	9.90	3.06
	Dept. of Ed.	1.73	1.25	11.33	6.24
	State Board	1.50	2.05	8.75	15.75
	Legislators	1.45	1.17	9.45	6.62
	Trustees	1.76	.60	12.48	3.53
	Business Leaders	1.54	.73	10.74	3.76
14. Offer specialized assistance to small businesses to nurture their development, such as incubator programs and services	Total	1.67	.62	12.15	3.70
	Presidents	2.00	.00	14.87	2.07
	Faculty	1.60	.35	11.91	1.88
	Superintendents	1.27	.69	10.04	3.19
	Dept. of Ed.	1.87	.74	13.80	6.17
	State Board	1.44	1.97	10.89	9.93
	Legislators	1.81	.85	11.75	4.61
	Trustees	1.93	.31	13.71	2.71
	Business Leaders	1.47	.75	9.98	4.34
21. Provide a common location for human service agencies in a region such as; employment services, welfare services and vocational rehabilitation services	Total	.93	.87	8.08	4.92
	Presidents	1.27	1.86	11.13	2.97
	Faculty	.88	.45	8.19	2.58
	Superintendents	.82	.77	6.85	3.98
	Dept. of Ed.	.03	2.02	10.07	9.25
	State Board	1.11	2.52	7.78	13.77
	Legislators	.69	1.12	5.50	6.64
	Trustees	.88	.86	8.33	5.54
	Business Leaders	.83	.80	6.64	4.56

Table 30. (continued)

Variable	Group	Current		Future	
		\bar{X}	s	\bar{X}	s
30. Assist community industrial development groups seek new business and industry for the area	Total	1.67	.63	12.29	3.77
	Presidents	2.00	.00	15.67	1.29
	Faculty	1.64	.34	12.36	1.88
	Superintendents	1.56	.62	10.94	2.91
	Dept. of Ed.	1.80	.87	12.00	6.05
	State Board	1.50	2.05	10.75	10.64
	Legislators	1.55	.77	10.42	6.74
	Trustees	1.93	.35	14.70	2.30
	Business Leaders	1.37	.78	11.20	3.99
31. Provide research assistance to community economic development groups	Total	1.50	.70	11.24	4.08
	Presidents	1.73	1.25	13.20	2.86
	Faculty	1.39	.39	11.44	2.00
	Superintendents	1.43	.67	10.49	3.06
	Dept. of Ed.	1.47	1.35	11.00	6.21
	State Board	1.22	2.26	9.56	15.55
	Legislators	1.48	1.04	10.10	6.16
	Trustees	1.82	.51	13.45	3.65
	Business Leaders	1.46	.71	10.65	3.81
33. Provide student housing for students who are unable to commute to campus	Total	1.42	.83	10.64	5.11
	Presidents	1.93	.54	15.00	2.20
	Faculty	1.37	.45	11.79	2.32
	Superintendents	1.14	.82	8.45	4.49
	Dept. of Ed.	1.80	1.18	12.33	7.44
	State Board	1.33	2.35	9.12	17.20
	Legislators	1.03	1.36	7.03	7.63
	Trustees	1.44	.81	10.69	4.86
	Business Leaders	1.32	.87	10.32	4.53

APPENDIX E. WEIGHTED MEANS AND STANDARD DEVIATIONS DESCRIPTIVE DATA

Table 31. The weighted means, weighted standard deviations and numbers of the group and experience for instructional credit functions in the "current" classi

	Presidents	Faculty	Superin- tendent	Dept. of Education	State Board	Leg.
<u>Gender</u>						
Male	$\bar{x} = 25.93$ $s = 2.74$ $N = 15$	$\bar{x} = 21.71$ $s = 5.29$ $N = 145$	$\bar{x} = 21.40$ $s = 4.41$ $N = 80$	$\bar{x} = 25.00$ $s = 2.44$ $N = 11$	$\bar{x} = 24.25$ $s = 2.73$ $N = 4$	$\bar{x} =$ $s =$ $N =$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 20.66$ $s = 4.61$ $N = 96$	$\bar{x} = 22.50$ $s = 5.77$ $N = 4$	$\bar{x} = 23.75$ $s = 1.98$ $N = 4$	$\bar{x} = 19.80$ $s = 3.30$ $N = 5$	$\bar{x} =$ $s =$ $N =$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 21.00$ $s = 5.91$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.00$ $s =$ $N = 1$	$\bar{x} = 22.00$ $s = 5.18$ $N = 2$	$\bar{x} =$ $s =$ $N =$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 20.19$ $s = 5.26$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N =$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 19.67$ $s = 4.77$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.67$ $s = 1.77$ $N = 3$	$\bar{x} = 22.20$ $s = 1.49$ $N = 5$	$\bar{x} =$ $s =$ $N =$
Education beyond Bachelor's Degree	$\bar{x} = 25.93$ $s = 2.74$ $N = 15$	$\bar{x} = 22.39$ $s = 4.98$ $N = 135$	$\bar{x} = 21.11$ $s = 4.40$ $N = 52$	$\bar{x} = 25.00$ $s = 2.57$ $N = 9$	$\bar{x} = 26.00$ $s =$ $N = 1$	$\bar{x} =$ $s =$ $N =$
<u>Experience</u>						
1-9 years	$\bar{x} = 25.20$ $s = 4.01$ $N = 5$	$\bar{x} = 20.45$ $s = 4.90$ $N = 107$	$\bar{x} = 21.29$ $s = 4.07$ $N = 42$	$\bar{x} = 24.29$ $s = 3.63$ $N = 7$	$\bar{x} = 21.29$ $s = 4.14$ $N = 7$	$\bar{x} =$ $s =$ $N =$
10 years and over	$\bar{x} = 27.40$ $s = .82$ $N = 5$	$\bar{x} = 21.88$ $s = 5.16$ $N = 119$	$\bar{x} = 20.21$ $s = 5.16$ $N = 24$	$\bar{x} = 25.00$ $s = 1.76$ $N = 8$	$\bar{x} = 23.00$ $s =$ $N = 1$	$\bar{x} =$ $s =$ $N =$

Weighted standard deviations and numbers of the groups by gender, formal education, instructional credit functions in the "current" classification

Faculty	Superintendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
$\bar{x} = 21.71$ $s = 5.29$ $N = 145$	$\bar{x} = 21.40$ $s = 4.41$ $N = 80$	$\bar{x} = 25.00$ $s = 2.44$ $N = 11$	$\bar{x} = 24.25$ $s = 2.73$ $N = 4$	$\bar{x} = 19.96$ $s = 5.47$ $N = 26$	$\bar{x} = 23.17$ $s = 4.80$ $N = 54$	$\bar{x} = 21.04$ $s = 4.94$ $N = 50$
$\bar{x} = 20.66$ $s = 4.61$ $N = 96$	$\bar{x} = 22.50$ $s = 5.77$ $N = 4$	$\bar{x} = 23.75$ $s = 1.98$ $N = 4$	$\bar{x} = 19.80$ $s = 3.30$ $N = 5$	$\bar{x} = 20.17$ $s = 2.97$ $N = 6$	$\bar{x} = 24.57$ $s = 4.31$ $N = 14$	$\bar{x} = 19.00$ $s = 4.75$ $N = 16$
$\bar{x} = 21.00$ $s = 5.91$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.00$ $s =$ $N = 1$	$\bar{x} = 22.00$ $s = 5.18$ $N = 2$	$\bar{x} = 17.40$ $s = 7.09$ $N = 5$	$\bar{x} = 22.88$ $s = 4.30$ $N = 8$	$\bar{x} = 21.08$ $s = 5.55$ $N = 12$
$\bar{x} = 20.19$ $s = 5.26$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 18.25$ $s = 6.59$ $N = 4$	$\bar{x} = 24.75$ $s = 4.10$ $N = 8$	$\bar{x} = 20.70$ $s = 4.19$ $N = 10$
$\bar{x} = 19.67$ $s = 4.77$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.67$ $s = 1.77$ $N = 3$	$\bar{x} = 22.20$ $s = 1.49$ $N = 5$	$\bar{x} = 23.60$ $s = 2.06$ $N = 5$	$\bar{x} = 22.38$ $s = 5.77$ $N = 21$	$\bar{x} = 19.88$ $s = 4.23$ $N = 17$
$\bar{x} = 22.39$ $s = 4.98$ $N = 135$	$\bar{x} = 21.11$ $s = 4.40$ $N = 52$	$\bar{x} = 25.00$ $s = 2.57$ $N = 9$	$\bar{x} = 26.00$ $s =$ $N = 1$	$\bar{x} = 20.85$ $s = 3.39$ $N = 13$	$\bar{x} = 24.09$ $s = 3.80$ $N = 23$	$\bar{x} = 21.06$ $s = 5.57$ $N = 17$
$\bar{x} = 20.45$ $s = 4.90$ $N = 107$	$\bar{x} = 21.29$ $s = 4.07$ $N = 42$	$\bar{x} = 24.29$ $s = 3.63$ $N = 7$	$\bar{x} = 21.29$ $s = 4.14$ $N = 7$	$\bar{x} = 19.88$ $s = 5.32$ $N = 25$	$\bar{x} = 22.16$ $s = 5.17$ $N = 38$	$\bar{x} = 21.04$ $s = 4.54$ $N = 27$
$\bar{x} = 21.88$ $s = 5.16$ $N = 119$	$\bar{x} = 20.21$ $s = 5.16$ $N = 24$	$\bar{x} = 25.00$ $s = 1.76$ $N = 8$	$\bar{x} = 23.00$ $s =$ $N = 1$	$\bar{x} = 20.00$ $s = 8.04$ $N = 2$	$\bar{x} = 25.00$ $s = 3.50$ $N = 29$	$\bar{x} = 20.97$ $s = 5.36$ $N = 29$

Table 32. The weighted means, weighted standard deviations and numbers of the groups and experience for instructional credit functions in the "future" classification

	Presidents	Faculty	Superin- tendent	Dept. of Education	State Board	Legis
<u>Gender</u>						
Male	$\bar{x} = 201.33$ $s = 23.93$ $N = 15$	$\bar{x} = 163.95$ $s = 37.31$ $N = 146$	$\bar{x} = 153.96$ $s = 26.56$ $N = 80$	$\bar{x} = 184.73$ $s = 14.26$ $N = 11$	$\bar{x} = 158.00$ $s = 47.38$ $N = 4$	$\bar{x} = 158.00$ $s = 47.38$ $N = 4$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 165.24$ $s = 30.67$ $N = 96$	$\bar{x} = 172.25$ $s = 16.99$ $N = 4$	$\bar{x} = 196.25$ $s = 11.17$ $N = 4$	$\bar{x} = 172.40$ $s = 38.67$ $N = 5$	$\bar{x} = 172.40$ $s = 38.67$ $N = 5$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 148.90$ $s = 44.18$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 205.00$ $s =$ $N = 1$	$\bar{x} = 181.50$ $s = 22.27$ $N = 2$	$\bar{x} = 181.50$ $s = 22.27$ $N = 2$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 155.38$ $s = 40.62$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 155.38$ $s = 40.62$ $N = 21$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 161.91$ $s = 34.62$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 176.00$ $s = 15.50$ $N = 3$	$\bar{x} = 142.40$ $s = 41.19$ $N = 5$	$\bar{x} = 142.40$ $s = 41.19$ $N = 5$
Education beyond Bachelor's Degree	$\bar{x} = 201.33$ $s = 23.93$ $N = 15$	$\bar{x} = 167.80$ $s = 33.38$ $N = 135$	$\bar{x} = 150.27$ $s = 26.29$ $N = 52$	$\bar{x} = 190.00$ $s = 13.08$ $N = 9$	$\bar{x} = 219.00$ $s =$ $N = 1$	$\bar{x} = 219.00$ $s =$ $N = 1$
<u>Experience</u>						
1-9 years	$\bar{x} = 210.40$ $s = 9.05$ $N = 5$	$\bar{x} = 159.75$ $s = 31.08$ $N = 107$	$\bar{x} = 157.26$ $s = 22.63$ $N = 42$	$\bar{x} = 184.00$ $s = 7.32$ $N = 7$	$\bar{x} = 183.71$ $s = 29.59$ $N = 7$	$\bar{x} = 183.71$ $s = 29.59$ $N = 7$
10 years and over	$\bar{x} = 214.20$ $s = 11.22$ $N = 5$	$\bar{x} = 169.71$ $s = 34.13$ $N = 120$	$\bar{x} = 147.29$ $s = 31.23$ $N = 24$	$\bar{x} = 191.13$ $s = 17.91$ $N = 8$	$\bar{x} = 120.00$ $s =$ $N = 1$	$\bar{x} = 120.00$ $s =$ $N = 1$

weighted standard deviations and numbers of the groups by gender, formal education,
 nstructional credit functions in the "future" classification

Faculty	Superin- tendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
\bar{x} =163.95 s = 37.31 N = 146	\bar{x} =153.96 s = 26.56 N = 80	\bar{x} =184.73 s = 14.26 N = 11	\bar{x} =158.00 s = 47.38 N = 4	\bar{x} =157.58 s = 37.61 N = 26	\bar{x} =173.91 s = 42.36 N = 54	\bar{x} =155.14 s = 37.56 N = 50
\bar{x} =165.24 s = 30.67 N = 96	\bar{x} =172.25 s = 16.99 N = 4	\bar{x} =196.25 s = 11.17 N = 4	\bar{x} =172.40 s = 38.67 N = 5	\bar{x} =153.83 s = 37.88 N = 6	\bar{x} =190.07 s = 25.06 N = 14	\bar{x} =152.53 s = 32.40 N = 15
\bar{x} =148.90 s = 44.18 N = 10	\bar{x} = s = N = 0	\bar{x} =205.00 s = N = 1	\bar{x} =181.50 s = 22.27 N = 2	\bar{x} =150.60 s = 48.62 N = 5	\bar{x} =163.75 s = 68.75 N = 8	\bar{x} =173.09 s = 38.80 N = 11
\bar{x} =155.38 s = 40.62 N = 21	\bar{x} = s = N = 0	\bar{x} = s = N = 0	\bar{x} = s = N = 0	\bar{x} =152.25 s = 27.93 N = 4	\bar{x} =196.75 s = 29.81 N = 8	\bar{x} =134.00 s = 24.47 N = 10
\bar{x} =161.91 s = 34.62 N = 57	\bar{x} = s = N = 0	\bar{x} =176.00 s = 15.50 N = 3	\bar{x} =142.40 s = 41.19 N = 5	\bar{x} =183.80 s = 15.92 N = 5	\bar{x} =171.24 s = 31.25 N = 21	\bar{x} =151.35 s = 36.63 N = 17
\bar{x} =167.80 s = 33.38 N = 135	\bar{x} =150.27 s = 26.29 N = 52	\bar{x} =190.00 s = 13.08 N = 9	\bar{x} =219.00 s = N = 1	\bar{x} =163.15 s = 28.40 N = 13	\bar{x} =183.17 s = 35.88 N = 23	\bar{x} =163.88 s = 34.40 N = 17
\bar{x} =159.75 s = 31.08 N = 107	\bar{x} =157.26 s = 22.63 N = 42	\bar{x} =184.00 s = 7.32 N = 7	\bar{x} =183.71 s = 29.59 N = 7	\bar{x} =159.72 s = 38.84 N = 25	\bar{x} =171.05 s = 35.49 N = 38	\bar{x} =155.39 s = 28.08 N = 26
\bar{x} =169.71 s = 34.13 N = 120	\bar{x} =147.29 s = 31.23 N = 24	\bar{x} =191.13 s = 17.91 N = 8	\bar{x} =120.00 s = N = 1	\bar{x} =149.00 s = 36.73 N = 2	\bar{x} =183.93 s = 44.40 N = 29	\bar{x} =154.93 s = 40.39 N = 29

Table 33. The weighted means, weighted standard deviations and numbers of the groups and experience for instructional noncredit functions in the "current" class

	Presidents	Faculty	Superin- tendent	Dept. of Education	State Board	Legis
<u>Gender</u>						
Male	$\bar{x} = 24.87$ $s = 1.60$ $N = 15$	$\bar{x} = 22.99$ $s = 3.18$ $N = 145$	$\bar{x} = 21.04$ $s = 3.71$ $N = 80$	$\bar{x} = 24.36$ $s = 1.84$ $N = 11$	$\bar{x} = 24.75$ $s = 1.67$ $N = 4$	$\bar{x} = 24.75$ $s = 1.67$ $N = 2$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 21.64$ $s = 3.78$ $N = 96$	$\bar{x} = 20.50$ $s = 4.06$ $N = 4$	$\bar{x} = 23.75$ $s = 1.98$ $N = 4$	$\bar{x} = 21.00$ $s = 1.57$ $N = 5$	$\bar{x} = 21.00$ $s = 1.57$ $N = 6$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 22.50$ $s = 1.71$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 21.00$ $s =$ $N = 1$	$\bar{x} = 22.50$ $s = 2.59$ $N = 2$	$\bar{x} = 22.50$ $s = 2.59$ $N = 2$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 23.14$ $s = 2.89$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 21.49$ $s = 4.02$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.00$ $s = .85$ $N = 3$	$\bar{x} = 22.60$ $s = 2.18$ $N = 5$	$\bar{x} = 22.60$ $s = 2.18$ $N = 5$
Education beyond Bachelor's Degree	$\bar{x} = 24.87$ $s = 1.60$ $N = 15$	$\bar{x} = 22.82$ $s = 3.33$ $N = 135$	$\bar{x} = 21.21$ $s = 3.63$ $N = 52$	$\bar{x} = 24.22$ $s = 1.96$ $N = 9$	$\bar{x} = 26.00$ $s =$ $N = 1$	$\bar{x} = 26.00$ $s =$ $N = 1$
<u>Experience</u>						
1-9 years	$\bar{x} = 24.80$ $s = 2.46$ $N = 5$	$\bar{x} = 21.89$ $s = 3.68$ $N = 107$	$\bar{x} = 21.19$ $s = 3.57$ $N = 42$	$\bar{x} = 24.57$ $s = 2.16$ $N = 7$	$\bar{x} = 22.43$ $s = 2.41$ $N = 7$	$\bar{x} = 22.43$ $s = 2.41$ $N = 7$
10 years and over	$\bar{x} = 25.20$ $s = 1.00$ $N = 5$	$\bar{x} = 22.80$ $s = 3.28$ $N = 119$	$\bar{x} = 20.25$ $s = 4.20$ $N = 24$	$\bar{x} = 23.88$ $s = 1.56$ $N = 8$	$\bar{x} = 21.00$ $s =$ $N = 1$	$\bar{x} = 21.00$ $s =$ $N = 1$

eighted standard deviations and numbers of the groups by gender, formal education, structural noncredit functions in the "current" classification

Faculty	Superin- tendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
$\bar{x} = 22.99$ $s = 3.18$ $N = 145$	$\bar{x} = 21.04$ $s = 3.71$ $N = 80$	$\bar{x} = 24.36$ $s = 1.84$ $N = 11$	$\bar{x} = 24.75$ $s = 1.67$ $N = 4$	$\bar{x} = 21.12$ $s = 3.90$ $N = 26$	$\bar{x} = 23.07$ $s = 3.86$ $N = 54$	$\bar{x} = 21.47$ $s = 4.16$ $N = 50$
$\bar{x} = 21.64$ $s = 3.78$ $N = 96$	$\bar{x} = 20.50$ $s = 4.06$ $N = 4$	$\bar{x} = 23.75$ $s = 1.98$ $N = 4$	$\bar{x} = 21.00$ $s = 1.57$ $N = 5$	$\bar{x} = 21.00$ $s = 2.82$ $N = 6$	$\bar{x} = 24.07$ $s = 1.94$ $N = 14$	$\bar{x} = 20.13$ $s = 5.21$ $N = 16$
$\bar{x} = 22.50$ $s = 1.71$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 21.00$ $s =$ $N = 1$	$\bar{x} = 22.50$ $s = 2.59$ $N = 2$	$\bar{x} = 20.80$ $s = 2.85$ $N = 5$	$\bar{x} = 22.88$ $s = 2.91$ $N = 8$	$\bar{x} = 19.67$ $s = 6.17$ $N = 12$
$\bar{x} = 23.14$ $s = 2.89$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 16.75$ $s = 6.37$ $N = 4$	$\bar{x} = 24.25$ $s = 2.97$ $N = 8$	$\bar{x} = 22.60$ $s = 3.53$ $N = 10$
$\bar{x} = 21.49$ $s = 4.02$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 25.00$ $s = .85$ $N = 3$	$\bar{x} = 22.60$ $s = 2.18$ $N = 5$	$\bar{x} = 23.00$ $s = 2.31$ $N = 5$	$\bar{x} = 22.62$ $s = 5.12$ $N = 21$	$\bar{x} = 20.24$ $s = 4.16$ $N = 17$
$\bar{x} = 22.82$ $s = 3.33$ $N = 135$	$\bar{x} = 21.21$ $s = 3.63$ $N = 52$	$\bar{x} = 24.22$ $s = 1.96$ $N = 9$	$\bar{x} = 26.00$ $s =$ $N = 1$	$\bar{x} = 22.15$ $s = 1.99$ $N = 13$	$\bar{x} = 23.52$ $s = 2.32$ $N = 23$	$\bar{x} = 22.12$ $s = 3.55$ $N = 17$
$\bar{x} = 21.89$ $s = 3.68$ $N = 107$	$\bar{x} = 21.19$ $s = 3.57$ $N = 42$	$\bar{x} = 24.57$ $s = 2.16$ $N = 7$	$\bar{x} = 22.43$ $s = 2.41$ $N = 7$	$\bar{x} = 20.92$ $s = 3.97$ $N = 25$	$\bar{x} = 22.94$ $s = 4.11$ $N = 38$	$\bar{x} = 21.33$ $s = 4.25$ $N = 27$
$\bar{x} = 22.80$ $s = 3.28$ $N = 119$	$\bar{x} = 20.25$ $s = 4.20$ $N = 24$	$\bar{x} = 23.88$ $s = 1.56$ $N = 8$	$\bar{x} = 21.00$ $s =$ $N = 1$	$\bar{x} = 22.00$ $s = 2.30$ $N = 2$	$\bar{x} = 24.35$ $s = 2.35$ $N = 29$	$\bar{x} = 21.4$ $s = 4.9$ $N = 29$

Table 34. The weighted means, weighted standard deviations and numbers of the groups and experience for instructional noncredit functions in the "future" classification

	Presidents	Faculty	Superin- tendent	Dept. of Education	State Board	Legis
<u>Gender</u>						
Male	$\bar{x} = 191.27$ $s = 14.85$ $N = 15$	$\bar{x} = 166.85$ $s = 26.41$ $N = 145$	$\bar{x} = 144.01$ $s = 23.37$ $N = 80$	$\bar{x} = 168.09$ $s = 18.44$ $N = 11$	$\bar{x} = 165.00$ $s = 27.41$ $N = 4$	$\bar{x} = 15$ $s = 2$ $N = 2$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 163.31$ $s = 29.37$ $N = 96$	$\bar{x} = 153.75$ $s = 20.75$ $N = 4$	$\bar{x} = 173.00$ $s = 8.30$ $N = 4$	$\bar{x} = 142.00$ $s = 37.70$ $N = 5$	$\bar{x} = 14$ $s = 3$ $N = 6$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 159.40$ $s = 18.68$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 170.00$ $s =$ $N = 1$	$\bar{x} = 149.50$ $s = 5.70$ $N = 2$	$\bar{x} = 14$ $s = 2$ $N = 5$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 170.95$ $s = 28.12$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 13$ $s = 2$ $N = 4$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 164.54$ $s = 30.44$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 167.00$ $s = 26.02$ $N = 3$	$\bar{x} = 137.20$ $s = 36.06$ $N = 5$	$\bar{x} = 17$ $s = 1$ $N = 5$
Education beyond Bachelor's Degree	$\bar{x} = 191.27$ $s = 14.85$ $N = 15$	$\bar{x} = 164.13$ $s = 28.30$ $N = 134$	$\bar{x} = 145.40$ $s = 23.44$ $N = 52$	$\bar{x} = 170.44$ $s = 115.30$ $N = 9$	$\bar{x} = 203.00$ $s =$ $N = 1$	$\bar{x} = 158$ $s = 20$ $N = 13$
<u>Experience</u>						
1-9 years	$\bar{x} = 197.00$ $s = 9.49$ $N = 5$	$\bar{x} = 161.90$ $s = 28.32$ $N = 107$	$\bar{x} = 141.83$ $s = 21.04$ $N = 42$	$\bar{x} = 170.29$ $s = 10.49$ $N = 7$	$\bar{x} = 162.57$ $s = 32.57$ $N = 7$	$\bar{x} = 153$ $s = 27$ $N = 25$
10 years and over	$\bar{x} = 198.00$ $s = 8.21$ $N = 5$	$\bar{x} = 167.87$ $s = 27.43$ $N = 120$	$\bar{x} = 144.17$ $s = 26.24$ $N = 24$	$\bar{x} = 168.63$ $s = 20.42$ $N = 8$	$\bar{x} = 103.00$ $s =$ $N = 1$	$\bar{x} = 145$ $s = 1$ $N = 2$

ighted standard deviations and numbers of the groups by gender, formal education,
structional noncredit functions in the "future" classification

Faculty	Superin- tendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
\bar{x} =166.85 s = 26.41 N = 145	\bar{x} =144.01 s = 23.37 N = 80	\bar{x} =168.09 s = 18.44 N = 11	\bar{x} =165.00 s = 27.41 N = 4	\bar{x} =150.58 s = 26.07 N = 26	\bar{x} =174.30 s = 30.62 N = 54	\bar{x} =149.51 s = 29.95 N = 50
\bar{x} =163.31 s = 29.37 N = 96	\bar{x} =153.75 s = 20.75 N = 4	\bar{x} =173.00 s = 8.30 N = 4	\bar{x} =142.00 s = 37.70 N = 5	\bar{x} =147.50 s = 34.05 N = 6	\bar{x} =172.21 s = 28.24 N = 14	\bar{x} =148.33 s = 27.15 N = 15
\bar{x} =159.40 s = 18.68 N = 10	\bar{x} = s = N = 0	\bar{x} =170.00 s = N = 1	\bar{x} =149.50 s = 5.70 N = 2	\bar{x} =148.00 s = 28.80 N = 5	\bar{x} =165.63 s = 45.42 N = 8	\bar{x} =162.91 s = 31.55 N = 11
\bar{x} =170.95 s = 28.12 N = 21	\bar{x} = s = N = 0	\bar{x} = s = N = 0	\bar{x} = s = N = 0	\bar{x} =137.00 s = 26.33 N = 4	\bar{x} =188.50 s = 28.33 N = 8	\bar{x} =137.10 s = 18.02 N = 10
\bar{x} =164.54 s = 30.44 N = 57	\bar{x} = s = N = 0	\bar{x} =167.00 s = 26.02 N = 3	\bar{x} =137.20 s = 36.06 N = 5	\bar{x} =170.60 s = 15.73 N = 5	\bar{x} =171.71 s = 25.78 N = 21	\bar{x} =144.53 s = 29.72 N = 17
\bar{x} =164.13 s = 28.30 N = 134	\bar{x} =145.40 s = 23.44 N = 52	\bar{x} =170.44 s =115.30 N = 9	\bar{x} =203.00 s = N = 1	\bar{x} =158.31 s = 20.71 N = 13	\bar{x} =177.83 s = 23.79 N = 23	\bar{x} =156.06 s = 29.34 N = 17
\bar{x} =161.90 s = 28.32 N = 107	\bar{x} =141.83 s = 21.04 N = 42	\bar{x} =170.29 s = 10.49 N = 7	\bar{x} =162.57 s = 32.57 N = 7	\bar{x} =153.20 s = 27.19 N = 25	\bar{x} =168.55 s = 25.14 N = 38	\bar{x} =147.27 s = 27.66 N = 26
\bar{x} =167.87 s = 27.43 N = 120	\bar{x} =144.17 s = 26.24 N = 24	\bar{x} =168.63 s = 20.42 N = 8	\bar{x} =103.00 s = N = 1	\bar{x} =145.00 s = 1.15 N = 2	\bar{x} =179.97 s = 34.81 N = 29	\bar{x} =149.97 s = 29.56 N = 29

Table 35. The weighted means, weighted standard deviations and numbers of the groups by gender and experience for noninstructional functions in the "current" classification

	Presidents	Faculty	Superintendent	Dept. of Education	State Board	Legisl.
<u>Gender</u>						
Male	$\bar{x} = 12.87$ $s = 1.27$ $N = 15$	$\bar{x} = 10.97$ $s = 2.88$ $N = 145$	$\bar{x} = 9.43$ $s = 2.80$ $N = 80$	$\bar{x} = 11.64$ $s = 1.63$ $N = 11$	$\bar{x} = 9.75$ $s = 4.09$ $N = 4$	$\bar{x} = 9$ $s = 3$ $N = 26$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 9.82$ $s = 2.99$ $N = 96$	$\bar{x} = 9.75$ $s = 3.01$ $N = 4$	$\bar{x} = 11.50$ $s = 1.86$ $N = 4$	$\bar{x} = 9.20$ $s = 2.68$ $N = 5$	$\bar{x} = 10$ $s = 2$ $N = 6$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 11.30$ $s = 3.42$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 9.00$ $s =$ $N = 1$	$\bar{x} = 8.50$ $s = .52$ $N = 2$	$\bar{x} = 10$ $s = 3$ $N = 5$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 10.24$ $s = 3.09$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 7$ $s = 4$ $N = 4$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 9.54$ $s = 3.20$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 11.00$ $s = 2.25$ $N = 3$	$\bar{x} = 9.80$ $s = 3.42$ $N = 5$	$\bar{x} = 11$ $s = 2$ $N = 5$
Education beyond Bachelor's Degree	$\bar{x} = 12.87$ $s = 1.27$ $N = 15$	$\bar{x} = 10.94$ $s = 2.83$ $N = 135$	$\bar{x} = 9.54$ $s = 2.57$ $N = 52$	$\bar{x} = 12.11$ $s = 1.39$ $N = 9$	$\bar{x} = 14.00$ $s =$ $N = 1$	$\bar{x} = 10$ $s = 2$ $N = 13$
<u>Experience</u>						
1-9 years	$\bar{x} = 13.00$ $s = 1.59$ $N = 5$	$\bar{x} = 10.12$ $s = 2.86$ $N = 107$	$\bar{x} = 9.62$ $s = 2.70$ $N = 42$	$\bar{x} = 12.14$ $s = 1.38$ $N = 7$	$\bar{x} = 8.57$ $s = 3.32$ $N = 7$	$\bar{x} = 9$ $s = 3$ $N = 25$
10 years and over	$\bar{x} = 12.60$ $s = 1.23$ $N = 5$	$\bar{x} = 10.75$ $s = 3.06$ $N = 119$	$\bar{x} = 9.08$ $s = 2.48$ $N = 24$	$\bar{x} = 11.13$ $s = 1.79$ $N = 8$	$\bar{x} = 12.00$ $s =$ $N = 1$	$\bar{x} = 11$ $s = 2$ $N = 2$

ed standard deviations and numbers of the groups by gender, formal education,
ructional functions in the "current" classification

culty	Superin- tendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
10.97 2.88 145	$\bar{x} = 9.43$ $s = 2.80$ $N = 80$	$\bar{x} = 11.64$ $s = 1.63$ $N = 11$	$\bar{x} = 9.75$ $s = 4.09$ $N = 4$	$\bar{x} = 9.46$ $s = 3.43$ $N = 26$	$\bar{x} = 11.63$ $s = 1.76$ $N = 54$	$\bar{x} = 10.00$ $s = 2.75$ $N = 50$
9.82 2.99 96	$\bar{x} = 9.75$ $s = 3.01$ $N = 4$	$\bar{x} = 11.50$ $s = 1.86$ $N = 4$	$\bar{x} = 9.20$ $s = 2.68$ $N = 5$	$\bar{x} = 10.83$ $s = 2.12$ $N = 6$	$\bar{x} = 11.57$ $s = 1.91$ $N = 14$	$\bar{x} = 9.88$ $s = 3.28$ $N = 16$
11.30 3.42 10	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 9.00$ $s =$ $N = 1$	$\bar{x} = 8.50$ $s = .52$ $N = 2$	$\bar{x} = 10.20$ $s = 3.15$ $N = 5$	$\bar{x} = 11.25$ $s = 1.04$ $N = 8$	$\bar{x} = 9.17$ $s = 3.66$ $N = 12$
10.24 3.09 21	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 7.50$ $s = 4.62$ $N = 4$	$\bar{x} = 12.38$ $s = 2.00$ $N = 8$	$\bar{x} = 10.70$ $s = 3.23$ $N = 10$
9.54 3.20 57	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 11.00$ $s = 2.25$ $N = 3$	$\bar{x} = 9.80$ $s = 3.42$ $N = 5$	$\bar{x} = 11.00$ $s = 2.98$ $N = 5$	$\bar{x} = 11.76$ $s = 1.97$ $N = 21$	$\bar{x} = 9.53$ $s = 2.96$ $N = 17$
10.94 2.83 135	$\bar{x} = 9.54$ $s = 2.57$ $N = 52$	$\bar{x} = 12.11$ $s = 1.39$ $N = 9$	$\bar{x} = 14.00$ $s =$ $N = 1$	$\bar{x} = 10.15$ $s = 2.22$ $N = 13$	$\bar{x} = 11.35$ $s = 1.70$ $N = 23$	$\bar{x} = 10.35$ $s = 2.37$ $N = 17$
10.12 2.86 107	$\bar{x} = 9.62$ $s = 2.70$ $N = 42$	$\bar{x} = 12.14$ $s = 1.38$ $N = 7$	$\bar{x} = 8.57$ $s = 3.32$ $N = 7$	$\bar{x} = 9.56$ $s = 3.58$ $N = 25$	$\bar{x} = 11.21$ $s = 1.98$ $N = 38$	$\bar{x} = 10.30$ $s = 2.45$ $N = 27$
10.75 3.06 119	$\bar{x} = 9.08$ $s = 2.48$ $N = 24$	$\bar{x} = 11.13$ $s = 1.79$ $N = 8$	$\bar{x} = 12.00$ $s =$ $N = 1$	$\bar{x} = 11.00$ $s = 2.30$ $N = 2$	$\bar{x} = 12.14$ $s = 1.38$ $N = 29$	$\bar{x} = 9.79$ $s = 3.29$ $N = 29$

Table 36. The weighted means, weighted standard deviations and numbers of the groups and experience for noninstructional functions in the "future" classification

	Presidents	Faculty	Superin- tendent	Dept. of Education	State Board	Legis
<u>Gender</u>						
Male	$\bar{x} = 99.40$ $s = 9.75$ $N = 15$	$\bar{x} = 82.14$ $s = 18.77$ $N = 145$	$\bar{x} = 65.59$ $s = 16.23$ $N = 80$	$\bar{x} = 85.09$ $s = 9.83$ $N = 11$	$\bar{x} = 67.75$ $s = 27.88$ $N = 4$	$\bar{x} = 6$ $s = 2$ $N = 2$
Female	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 79.23$ $s = 17.78$ $N = 96$	$\bar{x} = 71.75$ $s = 22.36$ $N = 4$	$\bar{x} = 83.75$ $s = 5.06$ $N = 4$	$\bar{x} = 66.40$ $s = 13.23$ $N = 5$	$\bar{x} = 7$ $s = 1$ $N = 6$
<u>Education</u>						
High school or less	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 83.80$ $s = 23.50$ $N = 10$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 88.00$ $s =$ $N = 1$	$\bar{x} = 61.00$ $s = 2.07$ $N = 2$	$\bar{x} = 6$ $s = 2$ $N = 5$
Associate Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 81.86$ $s = 16.11$ $N = 21$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 6$ $s = 2$ $N = 4$
Bachelor's Degree	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 78.58$ $s = 18.62$ $N = 57$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 86.00$ $s = 10.33$ $N = 3$	$\bar{x} = 60.80$ $s = 17.89$ $N = 5$	$\bar{x} = 7$ $s = 2$ $N = 5$
Education beyond Bachelor's Degree	$\bar{x} = 99.40$ $s = 9.75$ $N = 15$	$\bar{x} = 81.18$ $s = 19.16$ $N = 134$	$\bar{x} = 66.19$ $s = 15.88$ $N = 52$	$\bar{x} = 85.11$ $s = 9.25$ $N = 9$	$\bar{x} = 112.00$ $s =$ $N = 1$	$\bar{x} = 6$ $s = 1$ $N = 1$
<u>Experience</u>						
1-9 years	$\bar{x} = 102.80$ $s = 5.62$ $N = 5$	$\bar{x} = 77.93$ $s = 16.44$ $N = 107$	$\bar{x} = 67.69$ $s = 16.37$ $N = 42$	$\bar{x} = 84.57$ $s = 7.68$ $N = 7$	$\bar{x} = 68.14$ $s = 23.48$ $N = 7$	$\bar{x} = 67$ $s = 21$ $N = 25$
10 years and over	$\bar{x} = 99.60$ $s = 8.58$ $N = 5$	$\bar{x} = 82.95$ $s = 19.85$ $N = 120$	$\bar{x} = 62.58$ $s = 12.97$ $N = 24$	$\bar{x} = 84.88$ $s = 9.78$ $N = 8$	$\bar{x} = 67.00$ $s =$ $N = 1$	$\bar{x} = 60$ $s = 36$ $N = 2$

ed standard deviations and numbers of the groups by gender, formal education,
functional functions in the "future" classification

Faculty	Superin- tendent	Dept. of Education	State Board	Legislators	Trustees	Business Leaders
32.14 18.77 145	$\bar{x} = 65.59$ $s = 16.23$ $N = 80$	$\bar{x} = 85.09$ $s = 9.83$ $N = 11$	$\bar{x} = 67.75$ $s = 27.88$ $N = 4$	$\bar{x} = 64.35$ $s = 22.19$ $N = 26$	$\bar{x} = 86.30$ $s = 17.99$ $N = 54$	$\bar{x} = 70.00$ $s = 18.51$ $N = 50$
79.23 17.78 96	$\bar{x} = 71.75$ $s = 22.36$ $N = 4$	$\bar{x} = 83.75$ $s = 5.06$ $N = 4$	$\bar{x} = 66.40$ $s = 13.23$ $N = 5$	$\bar{x} = 72.00$ $s = 12.96$ $N = 6$	$\bar{x} = 82.64$ $s = 15.58$ $N = 14$	$\bar{x} = 72.60$ $s = 14.53$ $N = 15$
33.80 23.50 10	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 88.00$ $s =$ $N = 1$	$\bar{x} = 61.00$ $s = 2.07$ $N = 2$	$\bar{x} = 69.80$ $s = 26.02$ $N = 5$	$\bar{x} = 77.00$ $s = 25.21$ $N = 8$	$\bar{x} = 70.82$ $s = 22.25$ $N = 11$
81.86 16.11 21	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 68.75$ $s = 20.63$ $N = 4$	$\bar{x} = 97.38$ $s = 11.469$ $N = 8$	$\bar{x} = 71.80$ $s = 9.70$ $N = 10$
78.58 18.62 57	$\bar{x} =$ $s =$ $N = 0$	$\bar{x} = 86.00$ $s = 10.33$ $N = 3$	$\bar{x} = 60.80$ $s = 17.89$ $N = 5$	$\bar{x} = 78.60$ $s = 20.94$ $N = 5$	$\bar{x} = 84.57$ $s = 16.28$ $N = 21$	$\bar{x} = 66.53$ $s = 19.62$ $N = 17$
81.18 19.16 134	$\bar{x} = 66.19$ $s = 15.88$ $N = 52$	$\bar{x} = 85.11$ $s = 9.25$ $N = 9$	$\bar{x} = 112.00$ $s =$ $N = 1$	$\bar{x} = 64.00$ $s = 16.03$ $N = 13$	$\bar{x} = 87.35$ $s = 15.71$ $N = 23$	$\bar{x} = 75.24$ $s = 17.69$ $N = 17$
77.93 16.44 107	$\bar{x} = 67.69$ $s = 16.37$ $N = 42$	$\bar{x} = 84.57$ $s = 7.68$ $N = 7$	$\bar{x} = 68.14$ $s = 23.48$ $N = 7$	$\bar{x} = 67.88$ $s = 21.15$ $N = 25$	$\bar{x} = 82.76$ $s = 15.29$ $N = 38$	$\bar{x} = 73.42$ $s = 13.31$ $N = 26$
82.95 19.85 120	$\bar{x} = 62.58$ $s = 12.97$ $N = 24$	$\bar{x} = 84.88$ $s = 9.78$ $N = 8$	$\bar{x} = 67.00$ $s =$ $N = 1$	$\bar{x} = 60.50$ $s = 36.16$ $N = 2$	$\bar{x} = 88.69$ $s = 19.84$ $N = 29$	$\bar{x} = 68.69$ $s = 19.09$ $N = 29$

